

# STUDIES IN AUSTRALIAN LEPIDOPTERA.

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THIS contribution consists of a complete revision of the known Australian species belonging to the three small families URANIADÆ, DREPANIDÆ, and THYRIDIDÆ; of a revision of the Australian genera of the LASIOCAMPIDÆ; and of a number of new genera and species belonging to several families. The last are mostly NOCTUIDÆ belonging to the trifine groups dealt with in vols. iv to ix of Hampson's great work, and PYRALIDÆ, my material in this last family being only half-exhausted when the call came to go to press.

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## FAM. NOCTUIDÆ.

### SUBFAM. AGARISTINÆ.

#### CRURIA EPICHARITA.

[ἐπιχαριτος, pleasing.]

♂. 60 mm. Crown orange; face black, sides and a few hairs above orange. Palpi black; basal joint and inner side of second joint with orange hairs. Antennæ black. Thorax black; apices of tegulæ bright orange. Abdomen black; a basal spot and apices of segments orange; tuft black. Legs black; anterior tibiæ with a few orange hairs. Forewings elongate-triangular, costa almost straight to near apex, apex rounded, termen strongly bowed, oblique; blackish, marked with white blotches, their edges partly suffused with blackish irroration; a quadrangular blotch in distal half of cell; three blotches increasing in size beneath basal portions of veins 4, 3, and 2; two elongate spots separated by a blackish vein beneath  $\frac{2}{3}$  costa; two similar spots before mid-termen, the lower larger; two small bluish-white subapical spots, and a third beneath the last white spot; cilia blackish, around apex white. Hindwings broad, termen rounded;

blackish; the whole central area broadly white, traversed by some blackish veins; cilia blackish. Underside similar.

Type in Coll. Lyell.

N.Q. Cape York; one specimen in February (*Elgner*).

### IDALIMA ÆTHRIAS.

*Argyrolepidia æthrias*, Turn., Tr. R.S.S.A. 1908, p. 55.

*Idalima cyanobasis*, Hmps., Cat. Lep. Phal. ix, p. 460 (1910).

These two genera are closely allied.

N.A. Port Essington, Port Darwin. N.Q. Cape York, Mount Garnet.

### SUBFAM. AGROTINÆ.

### CHLORIDEA ARESCA n. sp.

[ἀρεσκος, pleasing.]

♂. 30-34 mm. Head ochreous-grey. Palpi whitish-ochreous irrorated with rosy-purple. Antennæ ochreous-grey, towards base rosy-purple; ciliations in ♂  $\frac{1}{3}$ . Thorax ochreous-grey; beneath rosy-purple. Abdomen ochreous-grey; beneath irrorated with rosy-purple. Legs whitish-ochreous irrorated with rosy-purple; anterior and middle tarsi mixed with fuscous also. Forewings elongate-triangular, costa straight, apex round-pointed, termen scarcely oblique, slightly rounded beneath; ochreous-grey; some purplish irroration along costa; a dark-fuscous dot on fold at  $\frac{1}{5}$ ; traces of a reddish dentate line at  $\frac{1}{4}$ ; orbicular represented by a reddish-fuscous ring and central dot, these may be nearly obsolete; reniform conspicuous, dark reddish-fuscous; traces of a reddish median transverse line; postmedian line reddish, very slender, acutely dentate, the outer dentations ending in fuscous dots; traces of a dotted subterminal line; a terminal series of blackish dots; cilia rosy-purple with a fuscous median line. Hindwings with termen slightly sinuate; pale-ochreous; a broad dark-fuscous terminal band narrowing towards apex and tornus, with some rosy-purple irroration on termen; cilia pale-ochreous mixed with rosy-purple, apices whitish. Underside pale-ochreous; a crescentic dark-fuscous discal mark on forewing, but none on hindwing; terminal areas irrorated with rosy-purple, and containing a large dark-fuscous blotch in each wing.



I have four specimens from different localities all closely similar. I think they are distinct from any of the numerous varieties of *C. obsoleta*, Fab. The best points of distinction are the acutely dentate postmedian line on forewings, the ochreous hindwings, and the extensive rosy-purple suffusion on underside.

Type in Coll. Turner.

Q. Brisbane, Toowoomba, Dalby. N.S.W. Sydney.

### CANTHYLIDIA RHODOPOLIA.

[*ῥοδοπολιος*, rosy-grey.]

♀. 30-32 mm. Head, antennæ, and thorax pale ochreous-grey. Palpi whitish, apices ochreous-grey. Abdomen pale ochreous-grey. Legs ochreous-whitish with some rosy suffusion, especially on middle tibiæ. Forewings triangular, costa straight, apex round-pointed, termen slightly oblique, rounded at tornus; whitish-ochreous with suffused rosy streaks between veins, and more or less general rosy irroration, leaving a clearer median streak; cilia whitish with a pale-grey median line. Hindwings with termen sinuate and slightly crenulate; pale-grey becoming whitish towards dorsum and base; cilia whitish, with a grey median line at apex. Underside whitish; forewings with fuscous suffusion in disc and rosy suffusion near apex.

Allied to *C. eodora*, Meyr., and *C. ionola*, Swin. From the former it may be distinguished by the absence of whitish streaks on costa and veins; from the latter by its largest size and streaky coloration.

Type in Coll. Turner.

N.A. Port Darwin, in February and March; three specimens received from Mr. F. P. Dodd.

### CANTHYLIDIA FERRUGINOSA n. sp.

[*Ferruginosus*, rusty.]

♀. 25 mm. Head, palpi, antennæ, and thorax ferruginous-brown. Abdomen similar but paler. Leg ferruginous-brown. Forewings triangular, costa slightly arched, apex round-pointed, termen bowed, oblique; whitish with general bright ferruginous suffusion, which is patchy in places, and forms three suffused spots, first beneath cell, second in outer end of cell, third just beyond cell; cilia brown-whitish. Hindwings with termen sinuate; ochreous-whitish, towards

termen suffused with fuscous; veins tinged with ochreous; cilia ochreous-whitish. Underside pale ochreous; disc of forewing suffused with pale-fuscous, and with a round median discal fuscous spot.


Type in Coll. Turner.

N.A. Port Darwin, in February; one specimen received from Mr. F. P. Dodd.

#### SUBFAM. HADENINÆ.

#### CHABUATA DENTOSA n. sp.

[*Dentusus*, toothed.]

♀. 34 mm. Head, palpi, antennæ, thorax, and abdomen whitish faintly tinged with brownish. Legs whitish. Forewings elongate, costa nearly straight, apex round-pointed, termen obliquely rounded; brown-whitish with some brownish suffusion; veins faintly whitish; a fine short dark-fuscous median streak from base; an irregular whitish mark in cell outlined with brownish; lines dark-fuscous, slender, strongly and sharply dentate; first at about  $\frac{1}{3}$ , obsolete towards costa; second from  $\frac{3}{5}$  costa obliquely outwards, then strongly dentate on veins, ending on mid-dorsum, where it joins first line; the two lines are also joined by a streak above dorsum to form a double V shaped figure ; a brownish suffusion between veins towards termen; a terminal series of fuscous dots between veins; cilia brownish, barred with whitish opposite veins. Hindwings with termen slightly sinuate; whitish faintly tinged with brownish; cilia whitish. Underside uniformly whitish.

Type in Coll. Lyell.

N.S.W. Byron Bay, in January; one specimen.

#### CIRPHIS RHODOPSARA n. sp.

[*ῥοδοψαρος*, rosy-grey.]

♂. 33 mm. Head whitish with a few fuscous scales. Palpi whitish mixed with fuscous. Antennæ whitish; ciliations in ♂  $\frac{1}{2}$ . Thorax pinkish-grey. Abdomen whitish; beneath fuscous. Legs whitish tinged with pink; middle and posterior tarsi pale-fuscous; anterior coxæ and femora in ♂ with massive fuscous and pinkish hair-crests. Forewings elongate, costa nearly straight, apex round-pointed, termen scarcely oblique, rounded beneath; pinkish-grey; a slender

ferruginous median streak from base beneath cell; a few scattered fuscous scales, mostly on veins; median vein and all veins towards termen slightly whitish; a series of fuscous dots on veins from  $\frac{2}{3}$  costa obliquely outwards, curved in disc, ending on  $\frac{2}{3}$  dorsum; cilia pinkish-grey. Hindwings with termen sinuate; white; a slender fuscous terminal line; cilia white. Underside whitish, towards costa of forewings suffused with pale fuscous.

This species belongs to the *diatrecta* group.

Type in Coll. Turner.

N.Q. Kuranda, in February; one specimen received from Mr. F. P. Dodd.

### CIRPHIS PORPHYRODES.

[*πορφυρώδης*, purplish.]

♂. 30 mm. Head, palpi, antennæ, thorax, and abdomen fuscous-whitish; two faint transverse whitish lines on tegulæ; antennal cilia-tions in ♂  $\frac{1}{4}$ ; genital tufts in ♂ large. Legs pale-fuscous; anterior coxæ and femora in ♂ without massive tufts. Forewings elongate, costa nearly straight, apex round-pointed, termen scarcely oblique, rounded beneath; whitish mixed with brownish-fuscous with a purplish tinge; veins whitish; a darker median streak from base beneath cell; a similar streak above dorsum towards base, two fine streaks in cell, and others between veins; a dark-fuscous dot on lower angle of cell; a series of dark-fuscous dots on veins, commencing on  $\frac{2}{3}$  costa, running obliquely outwards, then curved parallel to termen, and ending on  $\frac{2}{3}$  dorsum; a series of dark-fuscous terminal dots between veins; cilia pale-fuscous. Hindwings with termen sinuate; fuscous-whitish, paler towards base, pale-fuscous towards termen; cilia whitish. Underside fuscous-whitish; some fuscous irroration towards costa on both wings; a suffused fuscous transverse line on forewings at  $\frac{3}{4}$ .

According to Hampson's description (Cat. Lep. Phal. v, p. 523) this should be allied to *Cirphis roseilinea*, Wlk., from Borneo, India, and China; but the latter has an ochreous abdomen and ochreous-whitish hindwings.

Type in Coll. Turner.

N.Q. Kuranda, in April; one specimen received from Mr. F. P. Dodd.

**CIRPHIS XANTHOSTICHA** n. sp.

[ξανθοστιχος, yellow-streaked.]

♀. 34 mm. Head, face, palpi, and antennæ whitish-ochreous; palpi with some fuscous scales. Thorax and abdomen whitish-ochreous with a faint pinkish tinge. Legs ochreous-whitish. Forewings elongate-triangular, costa scarcely arched, apex pointed, termen obliquely rounded; pale ochreous-yellow suffused with ochreous-brown; a pale yellowish streak along median vein towards end of cell; veins outlined in whitish-ochreous; a double curved transverse series of fuscous dots beyond cell; a terminal series of blackish dots; cilia concolorous. Hindwings with termen rounded, sinuate beneath apex; whitish suffused with pale-pinkish; some fuscous suffusion towards termen; a terminal series of fuscous dots; cilia whitish. Underside whitish tinged with pinkish, with sparse dark-fuscous irroration towards costa of both wings.

Type in Coll. Lyell.

N.Q. Kuranda, in May; one specimen received from Mr. F. P. Dodd.

## SUBFAM. CUCULLIANÆ.

GEN. **GYROPRORA** nov.

[γυροπρωρα, with rounded prow.]

Frons with a large rounded obtuse conical projection. Tongue present but weakly developed. Palpi rather long, porrect; second joint long, rough-haired beneath. Antennæ of ♂ bipectinated to apex. Thorax and abdomen not crested. Anterior tibiæ without claws; posterior tibiæ with all spurs present. Neuration normal; forewings with areole present.

Not nearly related to any Australian genus.

**GYROPRORA OCHRIAS** n. sp.

[ὀχρος, pale.]

♂. 24 mm. Head and thorax brown-whitish; tegulæ with some dark-fuscous scales. Palpi dark-fuscous; terminal joint and apex of second joint ochreous-whitish. Antennæ brown-whitish; pectinations in ♂ 6. Abdomen ochreous-whitish. Legs ochreous-whitish with some pale-fuscous irroration. Forewings elongate, costa straight or slightly sinuate, apex rounded, termen very

obliquely rounded; brown-whitish; markings dark-fuscous; a short line from costa near base not reaching dorsum; a line from  $\frac{1}{4}$  costa to  $\frac{2}{3}$  dorsum, with a posterior tooth beneath middle; orbicular obsolete; reniform represented by two short whitish transverse streaks with dark-fuscous suffusion between them; a fine line from  $\frac{2}{3}$  costa obliquely outwards, wavy, bent downwards, then inwards, then downwards again to  $\frac{3}{4}$  dorsum; a fuscous subterminal shade sharply defined posteriorly; a well-marked terminal line; cilia brown-whitish with a pale-fuscous median line. Hindwings with termen rounded, slightly sinuate; whitish with some brown-whitish irroration; a faint linear fuscous mark at end of cell; cilia whitish. Underside whitish, discal marks and sparse irroration pale-fuscous.

Type in Coll. Lyell.

V. Melbourne; one specimen from Mr. E. Anderson's collection.

#### SUBFAM. ACRONYCTINÆ.

#### **EUPLEXIA EUARMOSTA** n. sp.

[εὐαρμόστος, harmonious.]

♂. 38 mm. Head and thorax grey mixed with white, the white occurring mostly as fine, bifid, deeply cleft scales. Palpi fuscous; terminal joint and apex of second joint white. Antennæ fuscous; in ♂ serrate and shortly ciliated ( $\frac{2}{3}$ ) in tufts. Abdomen grey with white irroration. Legs white; all tarsi and anterior tibiæ fuscous with white annulations and irroration. Forewings elongate-triangular, costa straight, apex rounded, termen obliquely rounded; whitish-grey; a dark-fuscous basal dot; a dark-fuscous transverse line from costa near base not reaching dorsum; orbicular elongate-oval, oblique, surrounded by a fuscous blotch, angular in outline with short projections at angles; this blotch is surrounded by a slight ferruginous suffusion; reniform pale with faintly ferruginous centre, succeeded by a smaller angular fuscous blotch; a subterminal series of fuscous ferruginous dots; cilia fuscous interrupted with whitish opposite veins. Hindwings with termen rounded, slightly wavy; rather dark-fuscous becoming fuscous-whitish towards base; cilia white, interrupted with fuscous on mid-termen, and with a fuscous median line between this and

apex. Underside of forewings grey; of hindwings whitish with discal spot and large terminal blotch dark-fuscous.

Type in Coll. Lyell.

V. Melbourne, from Mr. E. Anderson's collection.

### EUPLEXIA ASBOLODES n. sp.

[ἀσβολωδης, sooty.]

♀. 36 mm. [Head rubbed. Antennæ and palpi broken.] Thorax blackish with a few whitish-grey scales. Abdomen fuscous; crests dark-fuscous. Legs fuscous. Forewings elongate, costa slightly arched, apex rounded, termen obliquely rounded, crenulate; blackish with intensely black lines and irroration; orbicular large, S-shaped, upper segment larger, outlined in black; reniform oval, outlined with black and whitish, with a central ochreous-whitish spot; subterminal line preceded by a diffuse patchy whitish irroration very irregular in form; cilia blackish with a pale basal line. Hindwings with termen gently rounded, crenulate; fuscous; towards base whitish. Underside fuscous; basal half of hindwings whitish with a dark-fuscous discal spot.

The blackish coloration varied by white irroration, which recalls to mind the Geometrid *Melanodes anthracitaria*, Gn., is evidently protective, being adapted to blackened tree-trunks flecked with particles of white ash.

Type in Coll. Lyell.

W.A. Kelmscott, in September; one specimen received from Mr. G. A. Berthoud.

### ARIATHISA OPHIOSEMA n. sp.

[ὀφιοσημος, serpent-marked.]

♂. 32 mm. Head and palpi brownish-fuscous. Antennæ fuscous, towards base whitish; in ♂ moderately ciliated (1) in tufts. Thorax dark-fuscous; tegulæ brownish-fuscous. Abdomen fuscous. Legs fuscous with some whitish irroration. Forewings elongate, costa nearly straight, apex rounded, termen obliquely rounded; fuscous tinged with brownish; lines blackish; a line from base of



costa not reaching dorsum; an irregularly dentate oblique line from  $\frac{1}{3}$  costa to  $\frac{2}{5}$  dorsum; a second line from  $\frac{2}{3}$  costa first outwardly curved then dentate to  $\frac{3}{5}$  dorsum; orbicular represented by a minute white dot; reniform by a vermicular white mark doubly sinuate with extremities sharply bent inwards; a dark subterminal shade sharply defined posteriorly; terminal area brownish with some pale irroration; an interrupted terminal line; cilia grey. Hindwings with termen slightly sinuate; fuscous; cilia whitish with a fuscous basal line. Underside of forewings fuscous; with a suffused whitish line along costa to  $\frac{3}{4}$ , interrupted by a dark-fuscous spot before extremity; of hindwings whitish with a dark-fuscous discal spot and apical blotch.

Type in Coll. Lyell.

### ARIATHISA EBENODES n. sp.

♂. 35 mm. Head and thorax dark-fuscous with some whitish scales. Palpi dark-fuscous mixed with whitish; apices of second and terminal joints mostly whitish. Antennæ dark-fuscous; in ♂ minutely ciliated ( $\frac{1}{4}$ ), with short bristles ( $\frac{1}{3}$ ). Abdomen fuscous. Legs dark-fuscous irrorated and annulated with whitish. Forewings elongate, costa scarcely arched, apex rounded, termen obliquely rounded; dark-fuscous mixed with pale-fuscous; traces of a double dark-fuscous transverse line at  $\frac{1}{4}$ ; orbicular represented by a whitish dot; reniform by an irregular small white mark suffusedly bordered by dark-fuscous; a fine acutely dentate dark-fuscous line from  $\frac{2}{3}$  costa to  $\frac{2}{3}$  dorsum; a dark-fuscous subterminal shade sharply defined and irregularly dentate posteriorly; a fine interrupted dark-fuscous terminal line; cilia fuscous mixed with whitish. Hindwings with termen rounded; fuscous; cilia whitish with a fuscous basal line. Underside of forewings fuscous; a whitish subcostal streak, irrorated with fuscous, to  $\frac{4}{5}$ ; an obscure dark discal dot and postmedian line; of hindwings whitish with fuscous irroration, discal spot and apical blotch.

Type in Coll. Lyell.

W.A. Waroona, in March; one specimen received from Mr. G. F. Berthoud.

**ARIATHISA CELÆNICA** n. sp.

[κελαινικος, dark.]

♀. 24 mm. Head and thorax dark-fuscous with scattered whitish scales, more numerous in head and tegulæ. Palpi whitish, with some dark-fuscous irroration on outer side. Antennæ pale-fuscous. Abdomen ochreous-whitish with scanty fuscous irroration. Legs whitish with scanty fuscous irroration; anterior tibiæ and tarsi dark-fuscous annulated with ochreous-whitish. Forewings elongate-triangular, rather narrow, costa scarcely arched, apex rounded, termen obliquely rounded; dark-fuscous, markings brown-whitish; some very short costal strigulæ; lines blackish, dentate, very fine, and indistinct, preceded and followed by some brown-whitish scales; first at  $\frac{1}{4}$ ; second from  $\frac{3}{5}$  costa very obliquely outwards, then bent and continued to  $\frac{2}{3}$  dorsum; orbicular small, round, and inconspicuous; reniform well developed, consisting of two brown-whitish streaks divided, except at costal end, by a fine dark line, the posterior streak is semilunar and its dorsal extremity is prolonged into a short acuminate process; a fine blackish terminal line; cilia dark-fuscous mixed with brown-whitish. Hindwings with termen scarcely sinuate; whitish; veins, costal, and terminal areas irrorated with pale-fuscous; cilia whitish with a pale-fuscous sub-basal line. Underside of forewings fuscous-whitish; of hindwings whitish with a few pale-fuscous scales.

Type in Coll. Lyell.

V. Sea Lake, in April; one specimen received from Mr. D. Goudie.

**ARIATHISA OCHROPEPLA** n. sp.

[ὠχροπεπλος, with pale coat.]

♂. 26 mm. Head ochreous-whitish with a few fuscous scales on frons. Palpi whitish-ochreous; external surface of first joint and basal  $\frac{2}{3}$  of second joint dark-fuscous. Antennæ ochreous-whitish; ciliations in ♂  $\frac{2}{3}$ . Thorax ochreous-whitish. Abdomen ochreous-whitish with a few scattered pale-fuscous scales. Legs ochreous-whitish. Forewings elongate-triangular, costa nearly straight except at extremities, apex rounded, termen scarcely oblique, rounded beneath; grey-whitish, markings dark-fuscous; a spot at base; traces of a sub-basal line; a dentate line at  $\frac{1}{4}$  interruptedly indicated; a second interrupted dentate line from

$\frac{3}{5}$  costa outwards, then bent in disc, and ending on  $\frac{3}{4}$  dorsum ; some dark scales on apical third of costa ; a pale subterminal line faintly indicated ; orbicular obsolete ; reniform outlined by dark scales ; a fine interrupted terminal line ; cilia grey-whitish. Hindwings with termen slightly sinuate ; whitish with slight pale-fuscous suffusion ; cilia whitish with a fuscous basal line. Underside whitish suffused and irrorated with fuscous.

Type in Coll. Lyell.

V. Blackrock, near Melbourne, in October ; one specimen.

### **CALLYNA LEUCOSTICHA** n. sp.

[λευκοστιχος, white-streaked.]

♀. 28 mm Head whitish with some brownish scales on crown. Palpi dark-fuscous, base, apex of second joint, and base of terminal joint whitish mixed with reddish. Antennæ fuscous. Thorax dark-fuscous mixed with whitish ; some reddish scales on shoulders. Abdomen with a small dorsal crest on basal segment only ; fuscous. Legs whitish mixed with reddish and annulated with dark-fuscous. Forewings rather broadly triangular, costa gently arched, apex rounded, termen slightly oblique, slightly bowed ; dark-fuscous with scattered white and dull-greenish scales ; a few reddish scales at base of costa ; an ill-defined white streak from base along fold to  $\frac{1}{4}$  ; basal half of disc with much white irroration ; first line faintly indicated ; orbicular large, dark, quadrangular ; reniform obsolete, being indicated by only a fine dark transverse mark ; second line from  $\frac{2}{5}$  costa to  $\frac{3}{4}$  dorsum, not dentate, forming a rounded sigmoid curve, edged posteriorly with some whitish scales ; a dark subterminal shade, its posterior edge irregularly dentate, and connected with termen above middle ; terminal area above and below this connection with much white irroration ; a terminal series of dark-fuscous spots ; cilia dark-fuscous mixed with whitish. Hindwings with termen rounded, slightly wavy ; fuscous ; cilia fuscous, apices whitish. Underside fuscous with whitish and reddish irroration especially on hindwings ; hindwings with indistinct dark discal spot and subterminal line.

Type in Coll. Lyell.

N.Q. Cape York, in March ; one specimen (*Elgner*).

The following species are not recorded from Australia in Hampson's Cat. Lep. Phal. :—

MAGUSA OLIVARIA.

N.Q. Kuranda, in May ; one specimen in Coll. Lyell received from Mr. F. P. Dodd.

PERIGEA DOLOSA.

N.Q. Cairns, Geraldton. Q. Brisbane.

CRANIOPHORA FASCIATA.

N.Q. Kuranda. Q. Brisbane.

ERIOPIUS TRILINEATA.

I formerly ascribed this species to Australia, but in error.

ERIOPIUS MAILLARDI.

N.Q. Townsville.

CHASMINA TENUILINEA.

N.A. Port Darwin, in February and December ; several specimens received from Mr. F. P. Dodd.

CALLYNA MONOLEUCA.

N.Q. Townsville, in February and April ; two specimens received from Mr. F. P. Dodd.

ZALISSA CATOCALINA.

Q. Brisbane, in January, February, and March. The West Australian locality is an error. *Z. pratti*, Bak., is only a variety of this species.

FAM. URANIADÆ.

SUBFAM. URANIANÆ.

I know nine Australian species belonging to six genera. The last three genera in the tabulation are closely allied, the differences in neuration, which are remarkable, being confined to the male sex.

- |  |             |
|--|-------------|
| 1. Forewings with veins 10 and 11 absent ... ..  | 2.          |
| Forewings with 10 and 11 present ... ..  | 3.          |
| 2. Hindwings with a long tail traversed by veins 3 and 4,<br>and a shorter tail on vein 6 ... .. | Nyctalemon. |
| Hindwings with one short tail traversed by vein 4 only   | Alcidis.    |

- |  |     |     |     |                      |
|--|-----|-----|-----|----------------------|
| 3. Both wings with 3 and 4 long-stalked  | ... | ... | ... | <b>Urapteroides.</b> |
| Both wings with 3 and 4 connate or separate  | ... | ... | ... | <b>4.</b>            |
| 4. Palpi moderately long (1) with long terminal joint; forewing in ♂ with 6 and 7 separate | ... | ... | ... | <b>Micronia.</b>     |
| Palpi short and slender with short terminal joint; forewing in ♂ with 6 and 7 stalked      | ... | ... | ... | <b>5.</b>            |
| 5. Forewing in ♂ with 2 and 3 stalked  | ... | ... | ... | <b>Acropteris.</b>   |
| Forewing in ♂ with 2 and 3 widely separate   | ... | ... | ... | <b>Aploschema.</b>   |

## GEN. NYCTALEMON.

*Nyctalemon*, Dalman, Act. Holm. 1824, p. 407; Hmps., Moths Ind. iii, p. 111.

## NYCTALEMON PATROCLUS.

*Papilio patroclus*, Linn., Syst. Nat. i, 2, p. 749.

*Nyctalemon patroclus*, Hmps., Moths Ind. iii, p. 111.

A widely distributed species forming several slightly different local races.

N.Q. Cape York, 2. Cairns. Also from the Archipelago, China, and India.

## GEN. ALCIDIS.

*Alcidis*, Hb., Verz. p. 289.

Closely related to the Indian genus *Nyctalemon*, which differs in having a long tail traversed by veins 3 and 4 of the hindwing, and a shorter tail on vein 6.

## ALCIDIS ZODIACA.

*Zodiaca*, Butl.

This handsome dayflying species is gregarious in its habits, and occurs abundantly in the coastal scrubs of North Queensland. There is a closely allied form in New Guinea, of which it might be regarded as a subspecies.

## GEN. URAPTEROIDES.

*Urapteroides*, Moore, Lep. Atk. p. 258; Hmps., Moths Ind. iii, p. 112.

Palpi moderate; terminal joint short. Forewings with 3 and 4 stalked, 6 and 7 stalked, 8 and 9 stalked, 11 free or anastomosing with 12. Hindwings with a short tail on vein 4; 3 and 4 stalked, 6 and 7 connate.

**URAPTEROIDES ASTHENIATA.**

*Micronia astheniata*, Gn., Lep. x, p. 24.

*Urapteroides astheniata*, Hmps., Moths Ind. iii, p. 113.

The sexes differ according to the single example of each before me. The ♀ resembles Hampson's figure. The ♂ has only two fasciæ on forewings as against 5 in ♀, the two basal and the subterminal being absent; and only one on hindwings, the subterminal fascia being absent, and the terminal line becoming much broader and submarginal.

N.Q. Cape York, 2, 4. Also from Borneo, Malay Peninsula, Ceylon, and India.

**GEN. MICRONIA.**

*Micronia*, Gn., Lep. x, p. 22; Hmps., Moths Ind. iii, p. 117.

Palpi moderately long with elongate terminal joint. Forewing of ♂ with 2 and 3 arising by a common stalk from near base of median vein, 6 and 7 separate; in ♀ 2 from median beyond middle, 3 and 4 connate from lower angle of cell, 6 and 7 stalked; in both sexes 8, 9, 10 stalked, 11 free. Hindwings with 3 and 4 connate, 6 and 7 separate. Middle tibiæ in ♂ with long hairs on dorsal surface. Posterior tibiæ in ♂ smooth, with outer median spur absent.

**MICRONIA JUSTARIA.**

*Micronia justaria*, Wlk., Cat. Brit. Mus. xxiii, p. 821.

N.A. Port Darwin, 1, 5. N.Q. Thursday Island; Cape York; Cairns; Kuranda, 3, 4, 5; Geraldton; Dunk Island. Also from New Guinea.

**GEN. ACROPTERIS.**

*Acroptervis*, Hb., Zutr. iv, p. 36; Hmps., Moths Ind. iii, p. 114.

Palpi slender, short; terminal joint short. Forewings in ♂ with 2 and 3 stalked from median near base or about middle; in ♀ 2 and 3 connate or closely approximated from lower angle of cell; in both sexes 6 and 7 stalked, 8, 9, 10 stalked, 11 free. Hindwings with 3 and 4 connate or short-stalked, 6 and 7 connate or separate. Middle tibiæ of ♂ with long hairs on dorsal surface. Hind tibiæ of ♂ smooth, with outer median spur absent.



**ACROPTERIS STRIATARIA.**

*Geometra striataria*, Clerck, Icon. Ins. Pl. 55, f. 4.

*Anteia canescens*, Luc., P.L.S., N.S.W., 1891, p. 300.

*Acropterus striataria*, Hmps., Moths Ind. iii, p. 115.

N.A. Port Darwin, 1, 2, 10. N.Q. Cape York, 2; Kuranda, 4, 10; Townsville. Q. Rockhampton; Brisbane, 3; Rosewood, 3. Also from Java and India.

**ACROPTERIS QUADRIPUNCTATA.**

*Stesichora quadripunctata*, Warr., Nov. Zool. 1896, p. 274.

N.Q. Kuranda, 1, 4, 5, 12. Also from Louisiades and New Guinea.

**ACROPTERIS CADAVEROSA.**

*Anteia cadaverosa*, Luc. P.R.S.Q. 1901, p. 80.

My single example, which agrees fairly well with Dr. Lucas's description, is a ♀, and therefore the genus requires verification.

N.Q. Chillagoe, 3. The "Lucas-Rye Bellenden-Ker Expedition" is a myth.

**ACROPTERIS NANULA.**

*Micronia nanula*, Warr., Nov. Zool. 1898, p. 226.

Q. Westwood; Rosewood, 3; Killarney, 10.

**GEN. APLOSHEMA.**

*Aploschema*, Warr., Nov. Zool. 1897, p. 22.

Palpi minute. Neuration alike in both sexes. Forewings with 2, 3, and 4 widely separate at origin, 6 and 7 stalked, 8, 9, 10 stalked, 11 free. Hindwings with 3 and 4 widely separate, 6 and 7 connate or separate. Middle tibiae of ♂ with a tuft of long hairs on dorsal surface. Hind tibiae of ♂ smooth with outer median spur obsolete.

This genus differs from *Pseudomicronia*, Moore (Hmps., Moths Ind. iii, p. 116) in the wide separation of veins 2 and 3 of the forewings. Warren's type is *angulataria*, Fab., and as I have not examined this species I cannot be absolutely sure that I have applied the name correctly.

## APLOSHEMA DISCATA.

*Micronia discata*, Warr., Nov. Zool. 1899, p. 319.

*Anteia doddiana*, Luc., P.R.S.Q. 1899, p. 149.

Q. Brisbane; Toowoomba.

## SUBFAM. EPIPLEMINÆ.

This subfamily differs from the Uranianæ in the presence of a frenulum. The retinaculum in the ♂ is usually bar-shaped. The Australian genera are all closely related; the neurulation shows little variation, and the distinguishing points are mostly in the form of the hindwings, which in the first five genera differs much in the two sexes. The species are small, inconspicuous, and often closely similar. A large number have been described by Mr. Warren from the Papuan region, and it is quite likely that some here described as new may prove to be synonyms. There are twenty-four Australian species known at present, one of which I have not examined, but no doubt many more will be discovered within the tropical and sub-tropical zone.

- |  |                      |
|--|----------------------|
| 1. ♂ with dorsal area of hindwing more or less distorted or undeveloped ... ..   | 2.                   |
| Hindwings alike in both sexes ... ..   | 6.                   |
| 2. Dorsal area of hindwing in ♂ forming a glandular pocket ... ..  | 3.                   |
| Dorsal area of hindwing in ♂ not forming a glandular pocket ... ..   | 4.                   |
| 3. Hindwings in both sexes with a strong tooth on vein 7 only; in ♂ with veins 2, 3, and 4 lost in pocket ...                    | <i>Acachmena</i> .   |
| Hindwings in ♂ rounded or slightly angled on vein 7, veins 2 and 3 lost in pocket; in ♀ with small teeth on veins 4 and 7 ... .. | <i>Balantiucha</i> . |
| 4. Forewings with 8, 9, 10 stalked; hindwings in ♀ with 3 and 4 stalked ... ..   | <i>Monobolodes</i> . |
| Forewing with 10 free; hindwings with 3 and 4 not stalked ... ..   | 5.                   |
| 5. Hindwings of ♂ with sub-dorsal groove on upper surface smooth and without fovea; of ♀ with small teeth on 4 and 7 ... ..      | <i>Dirades</i> .     |
| Hindwings of ♂ with a small fovea and ridge of hairs in sub-dorsal groove; of ♀ toothed on 4 only ... ..                         | <i>Lobogethes</i> .  |
| 6. Hindwings rhombiform ... ..   | 7.                   |
| Hindwings not rhombiform ... ..  | 8.                   |

- |  |     |     |     |     |     |              |
|--|-----|-----|-----|-----|-----|--------------|
| 7. Forewings with termen dentate ; hindwings with 3 and 4 stalked                                | ... | ... | ... | ... | ... | Dysrhombia.  |
| Forewings not dentate ; hindwings with 6 and 7 stalked   |     |     |     |     |     | Rhombophylla |
| 8. ♂ with large tufts of hair on terminal segment of abdomen, and on posterior femora and tibiae | ... |     |     |     |     | Chætopyga.   |
| ♂ without tufts on abdomen and hindlegs  | ... | ... |     |     |     | 9.           |
| 9. ♂ antennæ bipectinated, the pectinations well separate, the outer row longer                  | ... | ... | ... | ... | ... | Dysæthria.   |
| ♂ antennæ with the pectinations closely appressed  | ... |     |     |     |     | 10.          |
| 10. Both sexes with a large fovea on base of forewing  | ... |     |     |     |     | Chundana.    |
| Forewings without fovea  | ... | ... | ... | ... | ... | Epiplema.    |

## GEN. ACACHMENA nov.

[ἀκαχμενος, sharp-pointed.]

Tongue present. Palpi moderate (about 1), porrect; second joint rather stout. Antennæ in ♂ unipectinate, with closely appressed pectinations. Forewings with 5 from slightly above middle of cell, 6 and 7 short-stalked, 8 and 9 stalked. Hindwings with a prominent tooth on vein 7, exaggerated in ♀; costa excavated in middle, with a subapical tuft; dorsal area rolled over to form a glandular pocket in ♂, veins 2, 3, and 4 lost in pocket; in ♀ 3 and 4 connate; in both sexes 6 and 7 connate, 8 widely separate from cell.

## ACACHMENA EUTHYSTICHA n. sp.

[εὐθυστικός, straight-lined.]

♂ ♀. 22-24 mm. Head and antennæ dark-grey; face and palpi dark-fuscous. Thorax grey. Abdomen grey or whitish-grey; in ♀ with four rows of fuscous dots. Legs grey; anterior pair fuscous. Forewings triangular, costa slightly arched, apex rounded, termen nearly straight, oblique; grey with fuscous irroration, in ♂ tinged with ferruginous; a median darker band, tinged with ferruginous, its anterior edge concave, posterior edge straight and well-defined, from  $\frac{3}{4}$  costa to  $\frac{3}{4}$  dorsum; a dark streak from costa before apex; a grey or ferruginous terminal line, sometimes containing some dark-fuscous dots; cilia grey, apices interruptedly whitish. Hindwings coloured as forewings; median band reduced to a row of ferruginous-grey dots.

Type ♂ in Coll. Lyell; ♀ type in Coll. Turner.

N.Q. Kuranda, in February, May, and October; three specimens received from Mr. F. P. Dodd, of which two are in Coll. Lyell.

## GEN. BALANTIUCHA nov.

[βαλαντιουχος, having a pocket.]

Tongue present. Palpi short (not exceeding 1), slender, smooth-scaled, porrect. Antennæ of ♂ with broad, unipectinate, closely appressed pectinations. Forewings with 5 from slightly below upper angle of cell, 6 and 7 stalked, 8 and 9 stalked, 11 free, sometimes approximated on a point with 12. Hindwings in ♂ rounded, with dorsal area rolled over to form a glandular pocket, veins 2 and 3 lost in pocket; in ♀ with small terminal teeth on veins 4 and 7; 3 and 4 connate, 6 and 7 connate, 8 in both sexes widely separate from cell.

Possibly 11 and 12 may sometimes anastomose.

Type *Dirades platyphylla*, Turn.

## BALANTIUCHA PLATYPHYLLA.

*Dirades platyphylla*, Turn., Tr. R.S.S.A. 1903, p. 21.

N.Q. Kuranda, 2; Q. Brisbane, 2, 3, 4. The locality Thursday Island was an error based on misidentification.

## BALANTIUCHA MICROTHYRIS n. sp.

[μικροθυρίς, with a small window.]

♂ ♀. 21-26 mm. Head and face dark-grey; fillet broadly white. Palpi dark-grey; inner surface of second joint whitish. Antennæ grey. Thorax and antennæ grey. Legs whitish-ochreous; anterior pair grey. Forewings triangular, costa nearly straight, apex rounded, termen nearly straight, oblique; in ♂ with a triangular fovea near base above internal vein; whitish-grey finely strigulated with darker grey; a semicircular fuscous blotch on dorsum beyond middle, better marked in ♂; two ochreous-grey lines from costa at  $\frac{1}{2}$  and  $\frac{3}{4}$ , the anterior obliquely outwards, the posterior outwardly curved, both lost in mid-disc; a submarginal series of fine fuscous annules, more or less edged with whitish; cilia whitish-grey. Hindwings coloured as forewings, with a broad median darker fascia best marked in ♀.

This species might be readily confused with the preceding if it were not for the fovea on forewing of ♂. It might be the same

as *Dirades annulifera*, Warr. (Nov. Zool. 1896, p. 274), but in the description of this no fovea is mentioned.

Type in Coll. Turner.

N.Q. Thursday Island; several specimens all in poor condition. Kuranda, 11, 12; three specimens smaller and paler than those from the former locality.

### BALANTIUCHA MUTANS.

*Erosia mutans*, Butl., A.M.N.H. (5) xix, p. 434 (1887).

*Dirades leucocera*, Hmps., Ill. Het. viii, p. 102, Pl. 150, f. 13; Moths Ind. iii, p. 133.

The strong subapical tuft on costa of hindwings is found in both sexes.

N.Q. Thursday Island; Cairns; Kuranda, 4; Townsville, 3. Also from Ceylon and India.

### BALANTIUCHA SEMINIGRA.

*Dirades seminigra*, Warr., Nov. Zool. 1896, p. 346.

Closely allied to the preceding but much darker, and with the antemedian line of hindwings obsolete.

N.Q. Cooktown; Kuranda, 3, 4, 5, 6, 10.

### BALANTIUCHA DECORATA.

*Dirades decorata*, Warr., Nov. Zool. 1898, p. 228.

Easily recognised by the triangular snow-white blotch on costa of hindwing.

N.Q. Kuranda, 4; Townsville, 2, 4. Q. Duaringa, 3; Brisbane, 4, 12; Mt. Tambourine, 11.

### GEN. DIRADES.

*Dirades*, Wlk., Brit. Mus. Cat. xxxv, p. 1650; Hmps., Moths Ind. iii, p. 132.

Differs from the preceding in the hindwings of ♂ not forming a glandular pocket, veins 2 and 3 visible. In the ♂ there is a naked groove on upper surface of hindwings within dorsal margin, termen is excavated in middle but not toothed; in ♀ termen is slightly toothed on veins 4 and 7; vein 11 of forewings may be free or strongly anastomosing with 12.

Type *theclata*, Gn., from India and Africa.

## DIRADES LEUCOCEPHALA.

*Erosia leucocephala*, Wlk., Brit. Mus. Cat. xxvi, p. 1758.

*Epiplema lugens*, Warr., Nov. Zool. 1897, p. 202.

N.Q. Geraldton; Townsville, 3. Q. Rockhampton; Brisbane, 8.

## GEN. LOBOGETHES.

*Lobogethes*, Warr., Nov. Zool. 1896, p. 351.

Near the preceding genera. Both wings in the rest position are folded fanwise, the forewings extended obliquely forwards, the hindwings appressed to abdomen. On the upperside of hindwings within the dorsal margin is a groove, which in the ♂ contains a ridge of long hairs and a small elongate fovea on its outer slope near base. In the ♂ the termen of hindwings is excised below vein 6; in the ♀ with a tooth on vein 4 only. In the forewing 11 anastomoses strongly with 12.

Type *Lobogethes interrupta*, Warr.

## LOBOGETHES INTERRUPTA.

*Lobogethes interrupta*, Warr., Nov. Zool. 1896, p. 352.

*Gathynia despecta*, Warr., Nov. Zool. 1898, p. 229.

*Erosia radiata*, Luc., P.R.S.Q. 1898, p. 17.

N.Q. Kuranda, 5; Townsville, 1, 2. Q. Duaringa; Brisbane, 1, 2, 4; Rosewood, 3; Warwick, 10. N.S.W. Glen Innes, 10.

## GEN. MONOBOLODES.

*Monobolodes*, Warr., Nov. Zool. 1898, p. 229.

Tongue present. Palpi rather short, porrect. Antennæ in ♂ unipectinate, the pectinations broad, rather closely appressed. Forewings with 5 from well below angle of cell, 6 and 7 stalked, 8 and 9 stalked, and 10 shortly stalked with them, 11 free. Hindwings with termen toothed on vein 7 only in ♂, dentate with a more prominent tooth on vein 7 in ♀; dorsal area in ♂ partly aborted, grooved on upper surface, vein 2 not visible; in ♀ with 3 and 4 stalked.

Type *M. subfalcata*, Warr.



**MONOBOLODES SUBFALCATA.**

*Monobolodes subfalcata*, Warr., Nov. Zool. 1898, p. 230.

N.A. Port Darwin, 11, 12. N.Q. Kuranda, 10, 11; Townsville, 3, 4. Q. Duaringa, 9.

**GEN. DYSRHOMBIA.**

*Dysrhombia*, Warr., Nov. Zool. 1896, p. 346.

Tongue present. Palpi short, porrect. Antennæ in ♂ unipectinate, the pectinations broad, rather closely appressed. Forewings sharply dentate; 5 from near upper angle of cell, 6 and 7 stalked, 8 and 9 stalked, 11 free. Hindwings alike in both sexes, rhombiform, costa with sub-basal and apical tufts, termen strongly produced, with an acute tooth on vein 4; 3 and 4 stalked, 6 and 7 connate.

Type *D. longipennis*, Warr.

**DYSRHOMBIA LONGIPENNIS.**

*Dysrhombia longipennis*, Warr., Nov. Zool. 1896, p. 347.

N.Q. Cooktown; Kuranda, 10, 11, 12.

**GEN. RHOMBOPHYLLA, nov.**

[ῥομβοφυλλος, with rhombiform wings.]

Tongue present. Palpi moderate, slender, porrect. Forewings with termen sinuate, not dentate; 5 from near upper angle of cell, 6 and 7 stalked, 8 and 9 stalked, 11 free. Hindwings rhombiform, produced on vein 3 into a tooth which is slightly hooked inwards; 3 and 4 connate, 6 and 7 short-stalked.

Type *Epiptema xylinopis*, Turn.

**RHOMBOPHYLLA XYLINOPIS.**

*Epiptema xylinopis*, Turn., Tr. R.S.S.A. 1903, p. 20.

N.Q. Townsville, 4.

**GEN. CHÆTOPYGA.**

*Chætopyga*, Warr., Nov. Zool. 1896, p. 344.

† **CHÆTOPYGA HORRIDA.***Chætopyga horrida*, Warr., Nov. Zool. 1896, p. 345.

N.Q. Mackay.

GEN. DYSÆTHRIA nov.

[δυσαιθριος, dusky.]

Tongue present. Palpi moderate, slender, porrect. Antennæ in ♂ bipectinated, the inner row short, the outer long, slender, widely separated. Forewings with 5 from near upper angle of cell, 6 and 7 stalked, 8 and 9 stalked, 11 free. Hindwings with termen slightly toothed on veins 4 and 7; 3 and 4 connate, 6 and 7 connate.

The antennal structure is interesting as explaining that of allied genera, which is at first sight difficult to understand.

**DYSÆTHRIA PASTEOPA** n. sp.

[παστεωπος, sprinkled, irrorated.]

♂. 23 mm. Head pale-grey; fillet whitish; face and palpi fuscous. Antennæ ochreous-whitish; pectinations in ♂ inner row  $3\frac{1}{2}$ , outer row  $\frac{2}{3}$ . Thorax and abdomen pale-grey. Legs ochreous-whitish; anterior pair mixed with fuscous. Forewings triangular, costa moderately arched, apex rounded, termen rounded, oblique; pale-grey sparsely irrorated with dark-fuscous, a slight brownish irroration representing antemedian and postmedian lines; cilia pale-grey. Hindwings with termen slightly dentate on veins 4 and 7, as forewings.

Type in Coll. Turner.

Q. Rosewood, in March; one specimen.

## GEN. CHUNDANA.

*Chundana*, Wlk., J. Linn. Soc. Zool. 1862, p. 116.*Paradirades*, Warr., Nov. Zool. 1896, p. 353.**CHUNDANA LUGUBRIS.***Chundana lugubris*, Wlk., J. Linn. Soc. Zool. 1862, p. 117.*Paradirades assimilis*, Warr., Nov. Zool. 1896, p. 353.

I owe this identification to Sir Geo. Hampson. Walker referred this species to the Lithosiadæ!

N.Q. Cooktown; Kuranda, 2, 3, 5, 8. Also from New Guinea and Borneo.

## GEN. EPIPLEMA.

*Epiplema*, H-Sch., Ausser. Schmet., p. 26; Hmps., Moths Ind. iii, p. 125.

Tongue present. Palpi slender, smooth-scaled, porrect, moderate or rather long (1 to 2). Antennæ of ♂ with broad closely appressed dentations. Forewings with 5 from upper angle of cell, 6 and 7 stalked, 8 and 9 stalked, 11 free. Hindwings alike in both sexes; termen toothed opposite veins 4 and 7; 3 and 4 connate, 6 and 7 connate, 5 present but weakly developed, 4 and 6 approximating towards termen.

## EPIPLEMA INSTABILATA.

*Epiplema instabilata*, Wlk., Cat. Brit. Mus. xxxv, p. 1646; Hmps., Moths Ind. iii, p. 131.

Easily recognised by the broadly white dorsum of forewings and costa of hindwings.

N.Q. Thursday Island; Cairns; Kuranda, 4, 5, 7; Geraldton; Townsville, 5. Also from the Archipelago, China, Ceylon, and India.

## EPIPLEMA CONFLICTARIA.

*Erosia conflictaria*, Wlk., Brit. Mus. Cat. xxiii, p. 851.

*Epiplema conflictaria*, Hmps., Moths Ind. iii, p. 129.

N.Q. Cairns; Kuranda, 3, 4, 5, 6, 7, 11; Geraldton, 11; Townsville, 12. Also from the Archipelago, Ceylon, and India.

## EPIPLEMA QUADRISTRIGATA.

*Epiplema quadristrigata*, Wlk., Cat. Brit. Mus. xxxv, p. 1647; Hmps., Moths Ind. iii, p. 128.

*Epiplema oxytypa*, Turn., Tr. R.S.S.A. 1903, p. 19.

Q. Brisbane. Also from Ceylon.

## EPIPLEMA STEREOGRAMMA.

*Dirades stereogramma*, Turn., Tr. R.S.S.A. 1903, p. 22.

N.Q. Kuranda, 4; Townsville, 3.

**EPIPLEMA LEUCOSEMA** n. sp.

[λευκοσημος, white-marked.]

♀. 15 mm. Head and palpi brown-whitish mixed with dark-brown. Antennæ whitish, on upper surface finely barred with dark-fuscous. Thorax and abdomen brown mixed with whitish. Legs whitish obscurely annulated with pale-fuscous. Forewings triangular, costa moderately arched, apex rounded, termen rounded, oblique; brown mixed with whitish and transversely strigulated with dark-fuscous; postmedian line from  $\frac{3}{5}$  costa to  $\frac{3}{5}$  dorsum, sharply angulated outwards in disc forming a strong projecting tooth; an irregular fuscous-brown terminal band; cilia whitish mixed with fuscous-brown. Hindwings with termen sharply dentate on veins 4 and 7; colour as forewings; an elongate median basal white streak bent towards costa at extremity; a double postmedian line, even more strongly toothed than in forewing; a crenated whitish subterminal line, edged externally with dark-fuscous; cilia brownish.

Type in Coll. Turner.

N.Q. Kuranda, in March; one specimen received from Mr. F. P. Dodd.

**EPIPLEMA THIOCOSMA** n. sp.

[θειοκοσμος, decorated with sulphur.]

♂ ♀. 19-20 mm. Head and antennæ whitish-grey; face and palpi dark-fuscous. Thorax and abdomen grey. Legs ochreous-whitish; anterior pair fuscous. Forewings triangular, costa gently arched, apex rounded, termen sinuate, being slightly excavated beneath apex and above tornus, projecting in middle; grey; in ♀ suffused with whitish-ochreous; markings ferruginous-fuscous; two dots in disc representing antemedian line; a median discal dot; a postmedian line, more strongly marked in ♀, from  $\frac{2}{3}$  costa obliquely outwards, angled in disc, and continued to  $\frac{3}{4}$  dorsum; a subterminal line obsolete towards tornus; cilia whitish-ochreous mixed with fuscous. Hindwings with small acute teeth on veins 4 and 7; fuscous-grey; in ♂ with a dark-fuscous basal spot, and an irregular area, especially towards costa, pale-yellow; a fine pale-yellow postmedian line with a strong angular median projection; in ♀ the wing is uniformly dark-grey with the exception of a small yellowish suffusion towards base of dorsum, and a triangular white dot near

termen about middle; some dark subterminal lunules; cilia in ♂ pale-yellow, interrupted by dark-grey between teeth, in ♀ dark-grey.

Types ♂ and ♀ in Coll. Lyell.

N.Q. Kuranda, in March, April, May, and November; four specimens received from Mr. F. P. Dodd.

### EPIPLEMA SCHEMATICA n. sp.

[σχηματικός, formal, precise.]

♀. 22-24 mm. Head, antennæ, thorax, and abdomen grey-whitish. Face and palpi dark-fuscous. Legs pale-fuscous; posterior pair ochreous-whitish. Forewings triangular, costa nearly straight for  $\frac{2}{3}$ , then rather strongly arched, apex pointed, termen with a rounded projection between veins 6 and 7 and another between 3 and 4, excavated between projections; pale brownish-grey; more or less strigulated with fuscous; antemedian line obsolete; postmedian line fine brownish-fuscous, from  $\frac{2}{3}$  costa indented in disc, thickened at ending on  $\frac{4}{5}$  dorsum; a brownish-fuscous spot on termen at excavation; cilia brownish-fuscous. Hindwings with termen dentate on veins 4 and 7; colour as forewings but slightly darker; a fine transverse line near base; three brownish-fuscous elongate dots at mid-disc; postmedian line at  $\frac{4}{5}$ , edged posteriorly by a pale line, obtusely angled below middle; some dark lunules opposite central part of termen.

Type in Coll. Turner.

N.Q. Kuranda, in March and September; three specimens received from Mr. F. P. Dodd.

### EPIPLEMA CÆRULEOTINCTA.

*Cæruleotincta*, Warr.

N.Q. Kuranda, 3; Townsville, 4.

### EPIPLEMA ARGILLODES.

*Epiplema argillodes*, Turn., Tr. R.S.S.A. 1903, p. 19.

Q. Gympie; Brisbane.

## FAM. LASIOCAMPIDÆ.

Moths usually of rather large size and heavy build, with thorax, abdomen, and legs densely hairy. Tongue absent. Palpi well developed, often long, with dense hairs. Antennæ pectinated to apex in both sexes. Forewings with 1c absent, 1a and 1b coincident (not furcate at base), 5 approximated at origin to 4, 6 and 7 connate or stalked from upper angle of cell, 9 and 10 stalked. Hindwings with frenulum and retinaculum obsolete; a strong costal expansion at base; 1c absent, 7 from costal edge of cell, 8 closely approximated or anastomosing with 7, or with cell, or connected by a bar with 7, so forming a precostal cell, usually with one or more costal veinlets running from precostal cell into basal costal expansion.

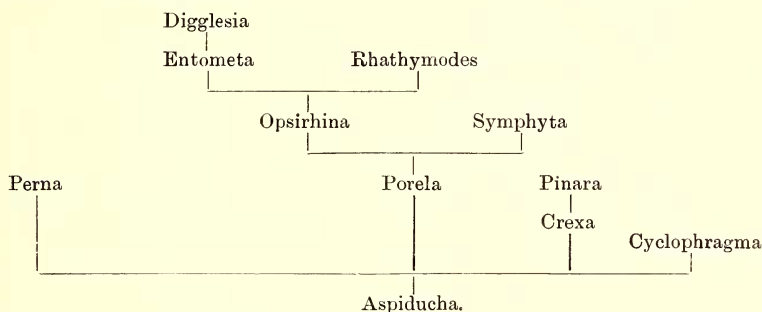
Though not of very high organisation, this family is specialised in several respects, so as to be sharply defined and easily recognised. The peculiarities in the hindwing, which are of importance in generic classification, are a consequence of the absence of a frenulum and presence of a large costal expansion, which in moths of their heavy build has rendered adaptations towards strengthening this part of the wing a physiological necessity. The costal veinlets (or pseudoneuria) may be irregularly bifid or trifid towards apex; they are not otherwise very variable, as has been stated, at least in the Australian genera. I consider the single basal costal veinlet, with anastomosis of 7 with 8 near base, as the most primitive condition. With the elongation of the precostal cell a second veinlet is developed, and the basal veinlet may either persist or become obsolete. Faint indications of additional veinlets may occasionally be detected, but I have not met with more than two fully developed in the Australian genera. The large precostal cell met with in *Perna* and in extra-Australian genera I consider to be a later modification, the bar between 7 and 8 representing an anastomosis which has been gradually drawn out (the initial step is occasionally seen as an individual abnormality), and *not* an extra vein.

The following table does not pretend to be based on a complete revision of the Australian genera and species, but as a preliminary attempt will, I hope, prove useful.



- a. Hindwings with 7 connected by a long bar with 8, precostal cell very large ... .. Perna.
- aa. Hindwings with 7 anastomosing with 8 soon after origin, precostal cell small.
- b. Hindwings with two costal veinlets, or with basal veinlet obsolete, leaving one from beyond middle of precostal cell.
- c. Palpi long, over 4.
- d. Forewings with 6, 7, 8 stalked.
- e. Hindwings with 3, 4, 5 stalked ... .. Diggleisia.
- ee. Hindwings with 3, 4, 5 all separate ... .. Rhathymodes.
- dd. Forewings with 8 separate.
- e. Hindwings with 4 and 5 stalked ... .. Entometa.
- ee. Hindwings with 4 and 5 separate ... .. Opsirhina.
- cc. Palpi moderate, not exceeding 3.
- d. Hindwings with 4 and 5 stalked ... .. Symphyta.
- dd. Hindwings with 4 and 5 separate ... .. Porela.
- bb. Hindwings with one strong costal veinlet from base of precostal cell.
- c. Palpi short, not reaching beyond frontal tuft.
- d. Hindwings with 4 and 5 connate or separate.
- e. Forewings with 6, 7, 8 stalked ... .. Pinara.
- ee. Forewings with 8 separate ... .. Crexa.
- dd. Hindwings with 4 and 5 stalked ... .. Cyclophragma
- cc. Palpi moderately long, reaching well beyond frontal tuft ... .. Aspiducha.

The probable affinities of these eleven genera are indicated by the following diagram:—



### GEN. PERNA.

*Perna*, Wlk., Cat. Brit. Mus. v, p. 1127.

Palpi moderately short. Forewings with 6 and 7 stalked, 9 and 10 stalked. Hindwings with 4 and 5 separate.

Type *Bombyx exposita*, Lew.

A development of *Aspiducha*, the anastomosis between 7 and 8 of hindwings being displaced distally and drawn out into a long bar.

**PERNA EXPOSITA.**

*Bombyx exposita*, Lew., Prodr. Ent. 8, Pl. vii.

*Brombyx pusilla*, Don., Ins. N. Holl.

♂ *Perna* ? *combinata*, Wlk., Cat. Brit. Mus. vii, p. 1757.

♀ *Pæcilocampa brevis*, Wlk., Cat. Brit. Mus. xxxii, p. 571.

♂ *Pæcilocampa hebes*, Wlk., Cat. Brit. Mus. xxxii, p. 571.

♀ *Tacillia rufocinerea*, Wlk., Cat. Brit. Mus. xxxii, p. 573.

N.Q. Cairns; Kuranda, 2, 3; Stannary Hills. Q. Brisbane, 1, 5, 10. N.S.W. Sydney. V. Melbourne, 4, 12.

**PERNA BREVIPENNIS.**

*Teara brevipennis*, Wlk., Cat. Brit. Mus. xxxii, p. 353.

*Bombyx figurata*, Luc., P.R.S.Q. 1901, p. 74.

N.Q. Kuranda, 2. Q. Brisbane, 8.

**PERNA CHLOROPHRAGMA.**

*Chlorophragma*, Meyr.

V. Kewell; Birchip, 2.

**GEN. DIGGLESIA nov.**

[After the late Mr. Diggles, the pioneer entomologist of Queensland.]

Palpi much elongated (over 3). Forewings with 6, 7, 8 stalked. Hindwings with 3, 4, 5 stalked, 7 anastomosing with 8 near base; precostal cell small, with a single postmedian costal veinlet.

An immediate derivative of *Entometa* differing in the stalking of vein 8 of the forewings and 3 of the hindwings.

**DIGGLESIA CROCOTA n. sp.**

[κροκωτος, saffron-coloured.]

♀. 54 mm. Head and thorax pale reddish-orange. Palpi very long (5), enlarged at apex; reddish-fuscous. Antennæ pale-ochreous. Abdomen pale reddish-ochreous, beneath dull reddish. Legs dull reddish. Forewings sub-oval, costa very strongly arched beyond middle, apex round-pointed, termen bowed, oblique; pale reddish-orange; markings pale-fuscous; an irregular line from

$\frac{1}{3}$  costa nearly to dorsum at  $\frac{1}{4}$ , joined near dorsum by a similar line from midcosta; a faintly marked line of dots from before apex to before tornus; cilia concolorous. Hindwings elongate; termen very strongly rounded; pale reddish-orange without markings; cilia whitish-ochreous. Underside similar but paler except for a very large costal blotch on hindwings extending to  $\frac{3}{4}$ , and traversed before midcosta by a pale-fuscaous transverse line.

Type in Queensland Museum.

N.Q. Cardwell; one specimen.

### GEN. ENTOMETA.

*Entometa*, Wlk., Cat. Brit. Mus. iv, p. 972.

Type *E. marginata*, Wlk.

### ENTOMETA MARGINATA.

♂. *Entometa marginata*, Wlk., Cat. Brit. Mus. iv, p. 972.

V. Gisborne, 2. T. ———.

### ENTOMETA FERVENS.

♀. *Opsirrhina fervens*, Wlk., Cat. Brit. Mus. vi, p. 1419.

♂. *Lebeda apicalis*, Wlk., Cat. Brit. Mus. vi, p. 1464.

♀. *Opsirrhina decorata*, Wlk., Cat. Brit. Mus. xxxii, p. 555.

♀. *Opsirrhina sobria*, Wlk., Cat. Brit. Mus. xxxii, p. 556.

*Opsirrhina guttularis*, Wlk.

*Opsirrhina flexicosta*, Feld., Reise Nov. Pl. 84, f. 4, 5.

This species is individually variable, and appears also to vary according to locality.

N.Q. Cape York, 4; Q. Brisbane, 1, 2, 5. N.S.W. Broken Hill. V. Melbourne, 3; Gisborne, 11; Kewell, 4; Brentwood, 10, 11.

### ENTOMETA OBSCURA.

♂. *Lebeda obscura*, Wlk., Cat. Brit. Mus. vi, p. 1464.

♂. *Lebeda saturata*, Wlk., Cat. Brit. Mus. xxxii, p. 569.

Differs from the preceding by the dark-fuscaous or blackish hindwings of the ♂. The ♀ seems to be hardly distinguishable.

N.S.W. Sydney. V. Melbourne. S.A. Adelaide.

**ENTOMETA ALBIDA.**

*Opsirhina albida*, Wlk., Cat. Brit. Mus. xxxii, p. 557.

*Pinara erubescens*, Low., Tr. R.S.S.A. 1894, p. 77.

Q. Rockhampton.

**ENTOMETA RUFESCENS.**

♀. *Gastropacha rufescens*, Wlk., Cat. Brit. Mus. vi, p. 1395.

♂. *Megasoma rubida*, Wlk., Cat. Brit. Mus. xxxii, p. 566.

Q. Brisbane, 11. N.S.W. Sydney, 4. V. Melbourne; Gisborne, 1, 10. T. Hobart. S.A. ———.

**ENTOMETA CYCLOLOMA.**

*Entometa cycloloma*, Turn., Tr. R.S.S.A. 1902, p. 186.

*Entometa plinthopa*, Turn., Tr. R.S.S.A. 1904, p. 239.

In this and the following species the hindwings are elongate, with vein 3 usually, not always, stalked with 4, 5.

N.A. Port Darwin, 11. N.Q. Cooktown; Kuranda, 3, 10; Townsville, 7. Q. Nambour, 4.

**ENTOMETA SPODOPA.**

*Entometa spodopa*, Turn., Tr. R.S.S.A. 1904, p. 239.

Q. Brisbane, 5.

**ENTOMETA AUSTRALASIÆ.**

*Bombyx australasiæ*, Fab., Syst. Ent. iii (1), p. 422.

♂. *Opsirhina nasuta*, Wlk., Cat. Brit. Mus. vi, p. 1420.

♀. *Opsirhina intemerata*, Wlk., Cat. Brit. Mus. xxxii, p. 557.

♂. *Opsirhina cinerata*, Wlk., Cat. Brit. Mus. xxxii, p. 558.

♀. *Opsirhina pudorina*, Wlk., Cat. Brit. Mus. xxxii, p. 558.

Q. Brisbane, 2, 3, 4. N.S.W. Sydney. V. Gisborne, 1, 9. Beaconsfield, 3. T. Launceston, 6; Hobart. S.A. Adelaide.

**ENTOMETA NANA.**

*Opsirhina nana*, Wlk., Cat. Brit. Mus. vi, p. 1421.

The smallest species.

T. Lefroy, 1. One specimen in Coll. Lyell.

## GEN. RHATHYMODES nov.

[*ραθυμωδης*, sluggish, lethargic.]

Palpi much elongated (over 3). Forewings with 6, 7, 8 stalked. Hindwings with 3, 4, 5 all separate, 7 anastomosing with 8 near base; precostal cell small, two strong costal veinlets, one from base, one from beyond middle of precostal cell.

A collateral ally of *Entometa*; more primitive in the neurulation of the hindwing, more modified in that of the forewing.

## RHATHYMODES LECHRIODES n. sp.

♀. 60 mm. Head, thorax, and abdomen pale reddish-brown. Palpi very elongate (5); pale reddish-brown; terminal joint fuscous with pale-ochreous hairs. Antennæ pale-ochreous. Legs pale reddish-brown; tarsi fuscous with pale annulations. Forewings triangular, costa moderately arched, more strongly towards apex, apex round-pointed, termen bowed, oblique; pale reddish-brown tinged with ochreous; a double darker transverse line from  $\frac{1}{3}$  costa to  $\frac{1}{3}$  dorsum; a similar double sinuate line from  $\frac{2}{3}$  costa to  $\frac{2}{3}$  dorsum; a series of pale fuscous dots from before apex to before tornus; cilia ochreous-whitish. Hindwings with termen rounded; pale-reddish without markings; cilia ochreous-whitish. Underside pale-reddish without markings.

Type in Queensland Museum.

Q. Nerang, near Southport; one specimen.

## GEN. OPSIRHINA.

*Opsirhina*, Wlk., Cat. Brit. Mus. vi, p. 1419.

Type *O. albigutta*, Wlk.

## OPSIRHINA ALBIGUTTA.

*Opsirhina albigutta*, Wlk., Cat. Brit. Mus. vi, p. 1419.

V. Gisborne, 2. T. Hobart.

## GEN. SYMPHYTA.

*Symphyta*, Turn., Tr. R.S.S.A. 1902, p. 187.

Type *S. psaropis*, Turn.

**SYMPHYTA PSAROPIS.**

*Symphyta psaropis*, Turn., Tr. R.S.S.A. 1902, p. 187.  
N.Q. Kuranda, 2; Townsville, 1, 2.

**SYMPHYTA NYCTOPIS.**

*Symphyta nyctopis*, Turn., Tr. R.S.S.A. 1902, p. 187.  
N.Q. Townsville, 1, 2, 3.

**GEN. PORELA.**

*Porela*, Wlk., Cat. Brit. Mus. iii, p. 772.

Type *Porela vetusta*, Wlk. In this genus are merged *Sitina*, Wlk. (type *vitulina*), *Sinaga*, Wlk. (type *subfasciata*), *Clathe*, Wlk. (type *arida*), and probably also *Callia*, Wlk. (type *albifinis*).

**PORELA VITULINA.**

*Bombyx vitulina*, Don., Ins. N. Holl.

Q. Brisbane; Southport. N.S.W. Newcastle. V. Melbourne,  
1, 12.

**PORELA SUBFASCIATA.**

*Sinaga subfasciata*, Wlk., Cat. Brit. Mus. iv, p. 855.

T. Ulverstone; Kelso; Georgetown.

**PORELA ARIDA.**

♀. *Clathe arida*, Wlk., Cat. Brit. Mus. v, p. 994.

♀. *Listoca lignaria*, Wlk., Cat. Brit. Mus. v, p. 1021.

♂. *Sorema nubila*, Wlk., Cat. Brit. Mus. v, p. 1065.

♀. *Perna metastigma*, Wlk., Cat. Brit. Mus. xxxii, p. 477.

N.Q. Prince of Wales Island, 6; Ingham. Q. Duaringa;  
Brisbane, 1, 3, 6, 9, 11. N.S.W. Sydney, 2, 10, 11.

**PORELA VETUSTA.**

*Porela vetusta*, Wlk., Cat. Brit. Mus. iii, p. 772.

*Perna varia*, Wlk., Cat. Brit. Mus. iv, p. 1128.

*Clathe anthracica*, Turn., Tr. R.S.S.A. 1902, p. 186.

N.S.W. Sydney, 10; Katoomba, 10. V. Healesville, 11.

**PORELA HOMOSPILA.***Homospila*, Meyr.

V. Birchip, 11.

**PORELA NOTABILIS.***Teara notabilis*, Wlk., Cat. Brit. Mus. iv, p. 852.*Bombyx mioleuca*, Meyr., Tr. R.S.S.A. 1891, p. 190.

V. Birchip, 4, 6. S.A. Adelaide; Mount Lofty.

**PORELA NOTODONTINA.***Cosmotricha notodontina*, Feld., Pl. 84, f. 11.

N.S.W., 4. V. Birchip, 4; Springvale. T. Hobart.

**GEN. PINARA.***Pinara*, Wlk., Cat. Brit. Mus. iii, p. 761.Type *Pinara cana*, Wlk.

This genus and the following are nearly allied though easily separated by the neuration. They are somewhat specialised, more particularly in the great disparity and dissimilarity of the sexes. While the males of the species of *Pinara* are sufficiently distinct, the females are so similar as to be distinguishable with difficulty.

**PINARA CANA.**♀. *Pinara cana*, Wlk., Cat. Brit. Mus. iii, p. 761.

N.S.W. Glen Innes, 12. T.———.

**PINARA DIVISA.**♂. *Entometa divisa*, Wlk., Cat. Brit. Mus. iv, p. 973.♂. ——— *rufescens*, Butl.

Q. Stanthorpe, 2. V. Gisborne, 11.

**PINARA OBLIQUA.**♂. *Entometa obliqua*, Wlk., Cat. Brit. Mus. iv, p. 973.*Rhinogyne calligama*, Feld., Reise Nov. Pl. 84, f. 9, 10.

V. Gisborne, 10, 11. T.



**PINARA METAPHÆA.**

♀. *Opsirhina metaphæa*, Wlk., Cat. Brit. Mus. xxxii, p. 556.

♂. *Entometa adusta*, Wlk., Char. Undescr. Lep., p. 16.

Q. Rockhampton; Nambour, 10; Brisbane, 1, 8, 11.

**GEN. CREXA.**

*Crexa*, Wlk., Cat. Brit. Mus. xxxv, p. 1927.

Type *Entometa punctigera*, Wlk.

In this genus the sexual dimorphism is even more marked than in *Pinara*, but the females of the different species are sufficiently distinct from each other, while in some instances the males are closely similar.

**CREXA MACROPTILA** n. sp.

[μακροπτελος, long-winged.]

♂. 27 mm. Head and palpi white. Antennæ ochreous-brown. Thorax-ochreous-brown mixed with white. Abdomen with a long trifold terminal tuft; ochreous-brown; beneath whitish. Legs fuscous mixed with whitish. Forewings elongate-triangular, costa straight nearly to apex, apex rounded, termen gently bowed, extremely oblique; brownish-ochreous-fuscous; mid-disc thinly scaled, translucent; a white dot at base; a triangular dark basal patch, sharply defined; a white discal spot beneath mid-costa, with a fuscous dot on each side of it; a fine whitish wavy line from  $\frac{2}{3}$  costa to before tornus; a subterminal row of fuscous spots edged posteriorly with whitish; cilia fuscous. Hindwings markedly elongate, costa short, termen and dorsum long; brownish-ochreous; a dark fuscous band along costa and termen; cilia white. The cell of hindwing is unusually long, reaching to  $\frac{4}{5}$ .

Type in Coll. Turner.

N.Q. Chillagoe, in March; one specimen received from Mr. F. P. Dodd.

**CREXA DIANIPHA** n. sp.

[διανιφος, marked with snow-white.]

♀. 40 mm. Head, palpi, and thorax whitish. Antennæ fuscous. Abdomen brown, apex and underside whitish. Legs dark-fuscous, mixed, and tarsi annulated, with whitish. Forewings

triangular, costa straight to near apex, apex rounded, termen bowed, oblique; fuscous with some faint whitish irroration; a fine crenulate whitish line from  $\frac{1}{3}$  costa to mid-dorsum; a white median discal spot with a dark-fuscous spot on each side; a clear white fascia from  $\frac{2}{3}$  costa to dorsum beyond middle, narrow on costa, soon broadening, and then traversed near posterior edge by a fine interrupted crenulate fuscous line; a faint whitish interrupted crenulate sub-terminal line; cilia fuscous. Hindwings with termen rounded; fuscous; veins and a suffused dorsal area ochreous-brown; a whitish transverse line before middle; cilia fuscous.

It is just possible that this may be the ♀ of the preceding species.

Type in Coll. Lyell.

N.Q. Cape York, in April; one specimen received from Mr. H. Elgner.

#### CREXA PUNCTIGERA.

♂. *Entometa punctigera*, Wlk., Cat. Brit. Mus. iv, p. 974.

♀. *Mecytha trimacula*, Wlk., Cat. Brit. Mus. v, p. 1122.

♂. *Crexa anthraxoides*, Wlk., Cat. Brit. Mus. xxxv, p. 1926.

♀. *Dichromosoma majus*, Feld., Reise Nov. Pl. 83, f. 26.

N.Q. Cape York, 3; Kuranda. V. Melbourne, 11; Gisborne, 1, 2, 11, 12. T. Launceston, 2, 12; Ulverstone.

#### CREXA SUBNOTATA.

♀. *Tolyte subnotata*, Wlk., Char. Undesc. Lep. Het., p. 67.

I have seen what I take to be the ♂ of this species. It is very similar to the ♂ of *pinnalis*, which I have described, but smaller, with discal spot on forewing nearly obsolete, and without the blackish dorsal spot.

V. Melbourne, 12; Gisborne, 12.

#### CREXA PINNALIS.

♀. *Bombyx pinnalis*, Luc., Tr. Nat. Hist. Soc. Q. 1894, p. 103.

♂. *Crexa hyaloëssa*, Turn., Tr. R.S.S.A. 1902, p. 184.

In spite of their great dissimilarity I am confident that these will prove to be sexes of one species.

Q. Brisbane, 1, 2, 3, 4.

**CREXA ACEDESTA** n. sp.

[ἀκηδεστος, neglected.]

♂ ♀. 26-34 mm. Head white, palpi fuscous. Antennæ fuscous. Thorax in ♂ dark-fuscous; in ♀ white. Abdomen dark-fuscous; tuft in ♀ white. Legs fuscous mixed with whitish. Forewings elongate-triangular, narrower in ♂, costa straight to near apex, apex rounded, termen bowed oblique; fuscous-grey; a crenulate whitish line from  $\frac{1}{4}$  costa to  $\frac{1}{3}$  dorsum; a brownish discal spot beneath mid-costa, minutely white-centred, and edged anteriorly and posteriorly with blackish; a dentate whitish line from  $\frac{2}{3}$  costa, bent inwards above dorsum, with a blackish spot containing some brown scales resting on indentation, and ending on  $\frac{2}{3}$  dorsum; a whitish crenulate subterminal line, edged anteriorly with dark-fuscous; cilia grey mixed with whitish. Hindwings with termen rounded; in ♂ fuscous, in ♀ grey; a white transverse line before middle, in ♂ straight, in ♀ twice dentate; terminal edge and cilia whitish.

The sexes differ but slightly except in the colour of the thorax.

Types in Coll. Lyell.

V. Birchip, 3, 4, 9 S.A. Adelaide.

**GEN. CYCLOPHRAGMA** nov.

[κυκλοφραγμος, with rounded edge.]

Palpi short, not extending beyond frontal tuft. Forewings with 6 and 7 stalked. Hindwings with 4 and 5 stalked, 7 anastomosing with 8 near base; a basal costal veinlet fairly well developed, faint indications of two or three additional veinlets.

**CYCLOPHRAGMA CYCLOMELA.**

*Opsirrhina cyclomela*, Low., Tr. R.S.S.A. 1903, p. 183.

N.Q. Cooktown; Townsville, 6.

**GEN. ASPIDUCHA** nov.

[ἀσπιδουχος, a shield-bearer.]

Palpi moderately long, much exceeding frontal tuft. Forewings with 6 and 7 stalked. Hindwings with 4 and 5 separate,

7 anastomosing with 8 near base, precostal cell small, a single basal costal veinlet.

Type *Clathe pyrsocoma*, Turn.

### ASPIDUCHA PYRSOCOMA.

*Clathe pyrsocoma*, Turn., Tr. R.S.S.A. 1902, p. 185.

N.A. Port Darwin, 3, 10. N.Q. Thursday Island; Cooktown; Stannary Hills; Townsville, 1. Q. Brisbane.

### ASPIDUCHA OBTUSA.

♀. *Pinara obtusa*, Wlk., Cat. Brit. Mus. xxxi, p. 315.

♂. *Opsirhina metastigma*, Wlk., Cat. Brit. Mus. xxxii, p. 556.

N.S.W. Sydney, 10.

### ASPIDUCHA FOLA.

*Clathe fola*, Swin., A.M.N.H. 1902, p. 82.

N.W.A. Roeburne; one ♀ example in Coll. Lyell.

## FAM. DREPANIDÆ.

A critical study of this small family, which is developed mainly in the Indo-Malayan region, should be of great interest, both on account of the considerable range of structural variation within the family, and because of its probable relationship to other groups. Three species are known in Queensland, all belonging to the most modified section, in which the frenulum and tongue are both absent. I refer them to three genera all closely related to the Indian genus *Oreta*, Wlk.

- a.* Forewings with 7 and 8 coincident, 9 arising separately from cell; hindwings with 7 anastomosing with 8 ... .. **Amphitorna.**
- aa.* Forewings with 7 and 8 stalked, 9, 10, 11 stalked; hindwings with 7 approximated to 8.
- b.* Palpi minute ... .. **Neoreta.**  
 Palpi well-developed, upturned ... .. **Holoreta.**

### GEN. AMPHITORNA nov.

[ἀμφιτορνος, well-rounded.]

Tongue absent. Palpi minute. Antennæ laminate in both sexes, the laminations broad and closely appressed. Middle and posterior tibiæ with well-developed terminal spurs, the latter without

middle spurs. Forewings falcate; 7 and 8 coincident, 10 and 11 long-stalked, 9 arising separately from cell, soon anastomosing with 10 from near origin (forming a small areole) to below 11, then anastomosing with 8. Hindwings with 6 from upper angle of cell, 7 from costal edge of cell, anastomosing with 8.

### AMPHITORNA FUSCIMARGO.

*Oreta fuscimargo*, Warr., Nov. Zool. 1896, p. 338.

*Oreta pusilla*, Warr., Nov. Zool. 1900, p. 99.

*Oreta roseola*, Warr., Nov. Zool. 1900, p. 99.

Very variable in colour. I have two ♀ examples; one is reddish with a very distinct dark oblique line across both wings; the other is greyish-ochreous with the line nearly obsolete. My identification of them with Mr. Warren's species is conjectural. He himself (Nov. Zool. 1907, p. 98) regards them as probably forms of one species. I imagine that the neuration of *pusilla* and *roseola* is not accurately stated.

N.Q. Kuranda, 4, 11, 12. Q. Duaringa; Yeppoon.

### GEN. NEORETA.

*Neoreta*, Warr., Nov. Zool. 1897, p. 378.

Differs from *Oreta* in the bipectinate antennæ and presence of terminal tibial spurs. (*Oreta*, Section IIA. Moths Ind. i, p. 350.) Type *Oreta olga*, Swin., from India.

### NEORETA ERMINEA.

*Cobanilla erminea*, Warr., Nov. Zool. 1899, p. 1. *Oreta miltodes*, Low., Tr. R.S.S.A. 1903, p. 29. *Oreta hypocalla*, Low., Tr. R.S.S.A. 1905, p. 179. Also variable in colour.

N.Q. Kuranda, 9; Townsville, 1, 5, 12. Also from Louisiades and Kei Islands.

### GEN. HOLORETA.

*Holoreta*, Warr., Nov. Zool. 1902, p. 340.

Differs from *Neoreta* in the longer upturned palpi. (*Oreta*, Sec. IIB. Hmps., Moths Ind. i, p. 351.)

### † HOLORETA JASPIDEA.

*Cobanilla jaspidea*, Warr., Nov. Zool. 1896, p. 335.

N.Q. Cooktown.

## FAM. THYRIDIDÆ.

Since I last treated of this family my material has considerably increased. I have now 32 species before me, and there are 4 recorded which I have not seen. I shall therefore make a fresh attempt to reduce the Australian species to some preliminary order. The species are mostly very similar, and a great many have been described, often very imperfectly, from the Indo-Malayan region, so that it is probable that some of my new names may turn out to be synonymous; even so I hope that the descriptions will prove useful. In identifying species particular attention should be given to the underside of the forewings.

The disco-cellulars are very weakly developed in most genera. In particular the dorsal disco-cellular of the forewing is frequently obsolete between veins 5 and 6, but I do not think this is a trustworthy generic character; indeed it does not seem to be always constant in the species, for instance *Striglina pyrrhata*.

*Tabulation of Genera.*

- a. Hindwing with 5 from near lower angle of cell.
  - b. Disco-cellulars of forewing strongly oblique; costal edge of cell much longer than dorsal; antennæ bipectinate in both sexes ... .. **Oxycophina.**
  - bb. Cell of forewing normal; antennæ in ♀ not pectinate.
    - c. Frons rounded; palpi porrect or obliquely ascending, second joint stout and densely scaled, terminal joint short; posterior tibiæ with long dense hairs; thorax and abdomen stout.
      - d. Forewing with vein 8 strongly curved and approximated to 9; antennæ of ♂ unipectinate ... .. **Canæa.**
      - dd. Forewing with vein 8 not strongly curved; antennæ in ♂ not unipectinate.
        - e. Forewing with 7 and 8 stalked ... .. **Aglaopus.**
        - ee. Forewing with 9 and 10 stalked ... .. **Trophoessa.**
        - eee. Forewing with all veins separate ... .. **Striglina.**
    - cc. Frons flat; palpi ascending, closely approximated to frons, second joint smooth, slender, terminal joint usually long; posterior tibiæ smooth or short-haired; thorax and abdomen slender.
      - d. Forewings with 8 and 9 stalked ... .. **Hypolamprus.**
      - dd. Forewings with 8 and 9 separate (rarely short-stalked).
        - e. Abdomen elongate, in ♂ as long as forewing ... .. **Obelura.**
        - ee. Abdomen moderate, in ♂ much shorter than forewing ... .. **Rhodoneura.**
- aa. Hindwing with 5 from middle of disco-cellulars ... .. **Addæa.**

## GEN. OXYCOPHINA.

*Oxycophina*, Warr., Nov. Zool. 1896, p. 342.

In the forewing veins 7 and 8 may be separate, connate, or short-stalked.

Type *Siculodes theorina*, Meyr.

## OXYCOPHINA THEORINA.

*Siculodes theorina*, Meyr., Tr. E.S. 1887, p. 200.

*Oxycophina subfenestrata*, Warr., Nov. Zool. 1896, p. 342.

N.Q. Cairns; Kuranda, 4, 9, 12; Geraldton. Also from Kei Islands and New Britain.

## GEN. CANÆA.

*Canæa*, Wlk., J. Linn. Soc. vii, p. 73 (1864); Warr., Nov. Zool. 1905, p. 410.

Type *semitessellalis*, Wlk.

## CANÆA SEMITESSELLALIS.

*Pyralis* ? *semitessellalis*, Wlk., Brit. Mus. Cat. xxxiv, p. 1246.

*Striglina hyalospila*, Low., Tr. R.S.S.A. 1894, p. 87.

N.Q. Kuranda, 9; Townsville. Q. Brisbane, 2. Also from New Guinea, Borneo, and India.

## GEN. AGLAOPUS nov.

[ἀγλαοπους, with brilliant feet.]

Frons rounded. Tongue well developed. Palpi obliquely ascending; second joint long and thickened with dense scales; terminal joint extremely short. Antennæ in ♂ with short ciliations and slightly longer bristles. Thorax and abdomen stout. Posterior tibiæ thickened with long dense hairs. Forewings with 7 and 8 stalked, 9 and 10 parallel and closely approximated. Hindwings with 5 from lower angle of cell, 7 from above upper angle, closely approximated to 8 for a short distance.

## AGLAOPUS NIPHOCOSMA n. sp.

[νιφκοσμος, with snowy ornament.]

♂. 32 mm. Head, palpi, and thorax orange-red. Antennæ orange-red; basal joint white; ciliations in ♂  $\frac{1}{2}$ , bristles  $\frac{2}{3}$ .



Abdomen orange-red tinged with rosy. Legs orange-red tinged with rosy; anterior femora and tarsi fuscous above, beneath white with some rosy scales; a large median snow-white spot on upper surface of anterior tibiæ; anterior tarsi tawny-fuscous, middle and posterior tarsi fuscous, apices of all tarsal joints snow-white. Forewings triangular; costa nearly straight, apex obtuse, termen bowed, slightly oblique; orange-red, with numerous pale-fuscous transverse strigulæ, which form a suffused subcostal streak for about  $\frac{2}{3}$ ; cilia orange-red, apices rosy, towards tornus extreme apices snow-white. Hindwings with termen bowed; as forewings; dorsal cilia very dense and rosy-tinged. Underside similar, but with subcostal and dorsal rosy suffusion in forewings, and an extensive rosy suffusion in hindwings covering dorsal half of disc.

Type in Coll. Lyell.

N.A. Port Darwin, in January; one specimen received from Mr. F. P. Dodd.

#### GEN. TROPHOËSSA nov.

[*τροφοεις*, stout.]

Frons with a rounded projection. Palpi obliquely ascending; second joint thickened by dense appressed scales, long, reaching nearly to vertex; terminal joint short, stout, obtuse. Antennæ of ♂ simple, naked. Thorax and abdomen stout. Posterior tibiæ with long dense hairs. Forewings with 9 and 10 stalked. Hindwings with 5 from near lower angle of cell, 7 from above upper angle, closely approximated to 8 soon after origin.

#### TROPHOËSSA DAPHENÆ n. sp.

[*δαφηνος*, reddish, tawny.]

♂♀. 34-36 mm. Head and palpi purple-fuscous. Antennæ pale-fuscous. Thorax reddish, anteriorly ochreous-fuscous. Abdomen reddish with some fuscous and ochreous-whitish scales. Legs purple-fuscous; tarsi fuscous with whitish-ochreous annulations. Forewings triangular, costa nearly straight, apex obtuse, termen very strongly bowed, oblique; reddish-ochreous or tawny with fine transverse fuscous strigulæ; beneath mid-disc a group of two or more circular hyaline spots bare of scales, better developed in ♀; cilia fuscous with a crimson sub-basal line. Hindwings with

termen gently rounded; colour, strigulations, and cilia as forewings; a fuscous sub-basal dot at  $\frac{1}{2}$ . Underside as upper but forewings generally suffused with fuscous, and with a fuscous subapical blotch on termen.

Type in Coll. Turner.

N.Q. Kuranda, in January, May, and November; six specimens received from Mr. F. P. Dodd.

### GEN. STRIGLINA.

*Striglina*, Gn., Ann. Soc. Ent. Tr. 1877, p. 283; Hmps., P.Z.S. 1897, p. 612.

Distinguished from *Rhodoneura* by the generally stout build, hairy palpi and posterior tibiæ, and rounded frons. Probably both genera may need further subdivision, but the distinctions given are primary and natural.

### STRIGLINA SCITARIA.

*Drepanodes scitaria*, Wlk., Brit. Mus. Cat. xxvi, p. 1488.

N.A. Port Darwin, 12. N.Q. Thursday Island; Cairns; Kuranda, 4; Geraldton; Townsville, 8. Also from New Guinea, Solomons, Fiji, Borneo, Formosa, Japan, Amur, Ceylon, and India.

### STRIGLINA LOXOMITA.

*Rhodoneura loxomita*, Turn., P.R.S.Q. 1905, p. 64.

Q. Brisbane, 1; Mt. Tambourine, 2.

### STRIGLINA PYRRHATA.

*Arhodia pyrrhata*, Wlk., Brit. Mus. Cat. xxxv, p. 1575.

*Striglina pyrrhata*, Meyr., Tr. E.S. 1887, p. 199.

Q. Brisbane. N.S.W. Sydney. V. Warragul; Gisborne.

### STRIGLINA CENTIGINOSA.

*Striglina centiginosa*, Luc., P.R.S.Q. 1898, p. 81.

*Rhodoneura centiginosa*, Turn., P.R.S.Q. 1903, p. 111.

*Rhodoneura cypholoma*, Turn., P.R.S.Q. 1903, p. 112.

Variable in colour from reddish-ochreous to grey, and also in the occasional development of a median fuscous band in wings. The shape of the forewings also varies somewhat, but the species is always distinguishable by the excavation above tornus.

N.A. Port Darwin, 12. N.Q. Townsville, 1, 2, 12. Q. Brisbane, 1, 2, 10, 11, 12.

### STRIGLINA IRIAS.

*Striglina irias*, Meyr., Tr. E.S. 1887, p. 199.

Q. Rockhampton; Gayndah; Brisbane, 10, 11, 12; Dalby; Miles, 12.

### STRIGLINA MYRSALIS.

*Pyralis myrsusalis*, Wlk., Brit. Mus. Cat. xix, p. 892.

*Rhodoneura myrsusalis*, Hmps., Moths Ind. i, p. 357.

N.A. Port Darwin, 10. N.Q. Kuranda, 10; Townsville, 1, 2. Also from the tropics of both hemispheres.

### GEN. HYPOLAMPRUS.

*Hypolamprus*, Hmps., Moths Ind. i, p. 364, P.Z.S. 1897, p. 614.

I am not sure that the stalking of veins 8 and 9 of forewings is a reliable distinction between this genus and *Rhodoneura*.

### HYPOLAMPRUS MARGINIPUNCTALIS.

*Microsca marginepunctalis*, Leech, Entom. 1889, p. 66, Pl. iv, f. 10.

*Hypolamprus pallescens*, Hmps., P.Z.S. 1897, p. 614.

N.Q. Cooktown; Kuranda, 3, 4; Cardwell, 8; Ingham, 9. Also from Louisiades, Borneo, Japan, and India.

### HYPOLAMPRUS SUBROSEALIS.

*Microsca subrosealis*, Leech, Entom. 1889, p. 66, Pl. iv, f. 14.

*Hypolamprus subrosealis*, Hmps., Moths Ind. i, p. 366.

N.Q. Thursday Island. Also from Borneo, China, Ceylon, and India.

### HYPOLAMPRUS HEMICYCLUS.

*Siculodes hemicycla*, Meyr., Tr. E.S. 1886, p. 216.

Q. Brisbane. Also from Fiji.

**HYPOLAMPRUS COSTISCRIPATUS.**

*Pharambara costiscripta*, Warr., A.M.N.H. (6) xvii, p. 209.

N.Q. Kuranda, 3, 4, 10; Herberton, 2. Also from New Guinea.

**† HYPOLAMPRUS LEOPARDATUS.**

*Hypolamprus leopardata*, Warr., Nov. Zool. 1897, p. 380.

N.Q. Cooktown.

**HYPOLAMPRUS ÆNICTODES n. sp.**

[ἀνικτωδης, obscure.]

♀. 23 mm. Head, palpi, antennæ, thorax, and abdomen reddish-grey. Palpi ascending, appressed to frons; terminal joint  $\frac{2}{3}$ . Legs reddish-grey; anterior coxæ with some fuscous scales. Forewings elongate-triangular, costa straight for  $\frac{4}{5}$ , apical  $\frac{1}{5}$  arched, apex round-pointed, termen sinuate beneath apex, strongly bowed between veins 2 and 5, strongly oblique; grey-reddish, paler towards costa; with small scattered fuscous strigulæ coalescing to form slender lines towards dorsum, and an interrupted subterminal line; a fuscous subapical dot; cilia fuscous. Hindwings with termen strongly bowed between veins 2 and 5; as forewings but somewhat redder, and with fuscous strigulæ less marked. Underside similar but with strigulæ more numerous and better defined; an interrupted streak of lustrous iridescent scales along costal vein of forewings continued along common stalk of 7 and 8, and for an equal distance along vein 6, a similar streak beneath costal vein from  $\frac{1}{6}$  to near middle, running into cell; all these streaks edged with blackish scales.

Type in Coll. Turner.

N.A. Port Darwin, in January; one specimen received from Mr. F. P. Dodd.

**HYPOLAMPRUS SCIODES n. sp.**

[σκιωδης, shaded.]

♂. 17 mm. Head, thorax, and abdomen whitish-ochreous with some brownish suffusion; face, palpi, and antennæ reddish-brown. Palpi ascending, appressed to frons; terminal joint  $\frac{2}{3}$ . Antennæ in ♂ without apparent ciliations. Legs whitish-ochreous; anterior

pair brownish-ochreous. Forewings rather elongate-triangular, costa straight for  $\frac{3}{4}$ , then slightly arched, apex acute, termen slightly sinuate, bowed, oblique; brown-ochreous-whitish with darker transverse strigulae; basal third suffused with pale-fuscous except towards costa; two smaller suffusions, one near dorsum at  $\frac{1}{5}$ , another near termen above middle; cilia brownish. Hindwings with termen rounded; similar to forewings; small fuscous suffusions towards dorsum near base and beyond middle. Underside similar but brighter; fuscous suffusions much smaller and more sharply defined.

Type in Coll. Turner.

N.Q. Kuranda, in November; one specimen received from Mr. F. P. Dodd.

#### GEN. OBELURA.

*Obelura*, Warr., Nov. Zool. 1908, p. 342.

#### OBELURA DOHERTYI.

*Banisia ? doherlyi*, Warr., Nov. Zool. 1897, p. 196.

*Rhodoneura stenosoma*, Hmps., P.Z.S. 1897, p. 617.

N.Q. Kuranda, 1. Also from Bali, Malay Peninsula, and Ceylon.

#### GEN. RHODONEURA.

*Rhodoneura*, Gn., Lep. x, pl. 1, fig. 8; Hmps., P.Z.S. 1897, p. 615.

#### RHODONEURA ELONGATA.

*Banisia elongata*, Warr., Nov. Zool. 1896, p. 340.

N.Q. Cooktown; Kuranda, 3, 4, 5, 9, 10.

#### RHODONEURA YPSILON.

*Banisia ypsilon*, Warr., Nov. Zool. 1899, p. 316.

I have two examples of this species; in one veins 8 and 9 of the forewings are short-stalked, in the other they are separate.

N.A. Hammer Island; N.Q. Kuranda, 9, 10; Q. Gayndah.

#### RHODONEURA AUSTRALIÆ.

*Brixia australiæ*, Warr., Nov. Zool. 1908, p. 329.

Readily distinguishable by the triangular white subapical costal blotch.

N.Q. Kuranda, 5, 9, 10; Q. Yeppoon, 10; Brisbane, 3.

**RHODONEURA TETRAGONATA.**

*Banisia tetragonata*, Wlk., J. Linn. Soc. vii, p. 78.

*Banisia dissimulans*, Warr., A.M.N.H. (6) xviii, p. 227.

*Banisia ordinaria*, Warr., A.M.N.H. (6) xviii, p. 228.

Mr. Warren described *dissimulans* from India and *ordinaria* from Australia in the same paper. Sir George Hampson catalogued them as the same species (P.Z.S. 1897, p. 619). Subsequently Mr. Warren has sunk *ordinaria* as a subspecies of *tetragonata*, Wlk. (Nov. Zool. 1908, p. 328). The Indian examples are much larger than those from Australia. A noteworthy characteristic of the species is the occurrence of one or two hyaline foveæ beneath origin of vein 2 of forewings in ♂.

N.Q. Kuranda, 3, 4, 10, 11, 12; Ingham, 9; Herberton, 12; Mackay. Q. Stradbroke Island, 11. Also from the Archipelago and India.

**† RHODONEURA AURATA.**

*Pharambara aurata*, Butl., A.M.N.H. (5) x, p. 233.

*Siculodes hydreuretis*, Meyr., P.L.S.N.S.W. 1886, p. 253. Also from New Britain.

**† RHODONEURA CRYPSIRIA.**

*Pharambara reticulata*, Butl., Tr. E.S. 1886, p. 420 (*præcc.*).

*Siculodes crypsiria*, Meyr., Tr. E.S. 1887, p. 201.

Q. Peak Downs; Duaringa.

**RHODONEURA FURCIFERA.**

*Rhodoneura furcifer*, Hmps., J. Bomb. Soc. xiii, p. 50.

N.A. Port Darwin, 1. N.Q. Townsville, 2. Q. Brisbane, 2, 3.

**RHODONEURA BASTIALIS.**

*Pyralis bastialis*, Wlk., Brit. Mus. Cat. xix, p. 52.

*Rhodoneura bastialis*, Hmps., Moths Ind. i, p. 57.

N.A. Port Darwin, 2, 10. N.Q. Kuranda, 2; Geraldton; Townsville, 2. Also from Solomons, Ceylon, and India.

**RHODONEURA POLYGRAPHALIS.**

*Pyralis? polygraphalis*, Wlk., Brit. Mus. Cat. xxxiv, p. 1240.

*Siculodes rhythmica*, Meyr., Tr. E.S. 1887, p. 201.

N.A. Port Darwin, 9, 10, 11. N.Q. Thursday Island; Kuranda, 5, 9; Herberton. Also from Solomons, Ceylon, and India.

**† RHODONEURA ALBIFERALIS.**

*Pyralis albiferalis*, Wlk., Brit. Mus. Cat. xxxiv, p. 1524.

N.Q. Cooktown. Also from New Guinea and Batchian.

**RHODONEURA HYPARGYRA.**

*Rhodoneura hypargyra*, Hmps., Moths Ind. i, p. 357.

*Siculodes mochlias*, Meyr., Tr. E.S. 1894, p. 479.

N.Q. Cape York, 8; Kuranda, 10. Two specimens in Coll. Lyell. Also from India.

**RHODONEURA CRYPSILITHA** n. sp.

[*κρυψιλιθος*, with hidden jewels.]

♀. 18 mm. Head, palpi, antennæ, and thorax brownish-fuscous. Palpi obliquely ascending; terminal joint  $\frac{1}{3}$ . Abdomen pale ochreous-fuscous. Legs brown-whitish; posterior pair paler. Forewings elongate-triangular, costa gently arched, more strongly towards apex, apex round-pointed, termen sinuate, slightly bowed, oblique; pale dull-reddish, with numerous faint fuscous transverse strigulæ; cilia pale fuscous-reddish. Hindwings with termen slightly rounded; similar to forewings but fuscous strigulæ more pronounced. Underside similar; forewings with an irregular fuscous suffusion above tornus, and a triangular fuscous mark on termen beneath apex; lower half of basal  $\frac{2}{3}$  of cell occupied by a thick black line interrupted by numerous bars of lustrous iridescent scales; above and below this are numerous fine black longitudinal streaks; another patch of these streaks immediately beyond cell.

Type in Coll. Turner.

Q. Brisbane, in December; one specimen.



**RHODONEURA RHAPHIDUCHA** n. sp.

[ῥαφιδουχος, needle-bearing.]

♂ ♀. 20-23 mm. Head, antennæ, and thorax whitish-ochreous. Antennal ciliations in ♂ inappreciable. Palpi ascending, appressed to frons; terminal joint  $\frac{1}{2}$ . Abdomen whitish with some pale-fuscous median dorsal spots. Legs brown-whitish annulated with white. Forewings elongate-triangular, costa straight for  $\frac{4}{5}$ , then arched; apex pointed, termen slightly bowed, oblique; whitish-ochreous with numerous distinct fine fuscous transverse strigulæ; a quadrangular fuscous spot on  $\frac{2}{3}$  dorsum; cilia whitish-ochreous, interrupted by fuscous opposite veins. Hindwings with termen rounded, incised between veins 5 and 6; as forewings. Underside similar; forewings with a brownish patch in basal half of cell, irrorated with lustrous opalescent and with black scales; a similar smaller patch immediately beyond cell.

Type in Coll. Turner.

N.Q. Kuranda, in September and May; Herberton, in January; three specimens received from Mr. F. P. Dodd.

**RHODONEURA CROSSOSTICHA** n. sp.

[κροσσοστιχος, with marginal line.]

♂. 14 mm. Head, palpi, antennæ, thorax, abdomen, and legs dull pale-reddish. Antennal ciliations in ♂ inappreciable. Palpi obliquely ascending; terminal joint  $\frac{1}{4}$ . Forewings elongate-triangular, costa straight for  $\frac{5}{6}$ , arched before apex, apex round-pointed, termen sinuate beneath apex, then bowed, oblique; dull pale-reddish with slightly darker transverse strigulations; a white discal spot at end of cell; a fine vertical fuscous line from mid-termen to vein 7; a fuscous dot on termen above tornus; cilia pale dull-reddish, with a fuscous spot opposite mid-termen. Hindwings with termen slightly sinuate; colour and discal spot as forewings, but without fuscous line or spots. Underside similar but brighter; strigulations on forewings forming interrupted fasciæ; first at  $\frac{1}{3}$ ; second median, bifurcating at discal dot, the two limbs expanded on costa at middle and  $\frac{3}{4}$ ; third incomplete running inside fuscous line, not reaching vein 8.

Type in Coll. Turner.

N.A. Port Darwin, in December; one specimen received from Mr. F. P. Dodd.

## GEN. ADDÆA.

*Addæa*, Wlk., Brit. Mus. Cat. xxxiv, p. 1201; Hmps., P.Z.S. 1897, p. 632.

*Mesopempta*, Meyr., Tr. E.S. 1886, p. 217.

## ADDÆA POLYPHORALIS.

*Pyralis?* *polygraphalis*, Wlk., Brit. Mus. Cat. xxxiv, p. 1245 (*præocc.*).

*Pyralis polyphoralis*, Wlk., Brit. Mus. Cat. xxxv, p. 1977.

My specimens are very constant in colour and marking, and agree exactly with the British Museum type.

N.Q. Kuranda, 4, 5, 10; Geraldton, 11.

## ADDÆA CASTANEATA.

*Mesopempta polyphoralis*, Meyr., Tr. E.S. 1887, p. 202, *nec* Wlk.

*Addæa castaneata*, Warr., Nov. Zool. 1908, p. 325.

I formerly confused this species with the preceding, and Mr. Meyrick has made the same mistake. It is distinguishable by its reddish-ochreous colouration, and straight outer edge of median fascia. It appears to be the same as Mr. Warren's species, though his type is larger.

N.A. Port Darwin, 10, 12; N.Q. Townsville, 9, 11; Q. Duaringa; Rosewood, 3. Also from New Guinea.

## ADDÆA SUBTESSELLATA.

*Addæa subtessellata*, Wlk., Brit. Mus. Cat. xxxiv, p. 1201.

Q. Nambour; Brisbane, 1, 2, 3, 4, 5, 12; Mt. Tambourine, 3.

## ADDÆA SYMPHONODES n. sp.

[συμφωνωδης, harmonious.]

♂ ♀. 17-20 mm. Head, antennæ, thorax, and abdomen ochreous-whitish. Antennal joints slightly expanded at apices; ciliations in ♂ imperceptible. Face and palpi brownish; palpi obliquely ascending; terminal joint  $\frac{1}{4}$ . Legs ochreous-whitish; anterior pair and tarsi brownish with whitish annulations. Forewings triangular, costa straight or slightly concave for  $\frac{5}{6}$ , arched before apex, apex pointed, termen bowed, oblique; ochreous-whitish

with numerous fuscous-brown strigulations; an oblique fuscous-brown fascia from  $\frac{3}{5}$  costa to  $\frac{2}{5}$  dorsum, with a short rounded projection on posterior edge above middle, sometimes darker towards costa; an interrupted fine fuscous line close to termen; cilia brown-whitish. Hindwings with termen nearly straight; colour, strigulations, and fascia as forewings. Underside similar but brighter; with a second fascia on forewings at  $\frac{3}{4}$ , which is only faintly indicated on upperside.

Slightly variable. Nearest *A. subtessellata*, Wlk. Best distinguished by the posterior projection on median fascia.

Type in Coll. Turner.

N.Q. Kuranda, in September, October, and November; four specimens received from Mr. F. P. Dodd.

## FAM. PYRALIDÆ.

### SUBFAM. GALLERIANÆ.

#### **HYPLOPHOTA PHLOEOMIMA** n. sp.

[*φλοιομιμος*, imitating bark.]

♂ ♀. 20-27 mm. Head and thorax grey-whitish. Palpi, antennæ, and abdomen grey. Legs fuscous with some whitish scales; posterior pair mostly whitish. Forewings elongate-oval, costa moderately arched, apex rounded, termen obliquely rounded; grey mixed with whitish-grey and a few scattered fuscous scales; 9 from 8 before 7; two indistinct darker dentate antemedian lines; a linear blackish median discal dot, followed by a second similar dot, both oblique; postmedian line at  $\frac{4}{5}$ , obscure, finely dentate; a fine dentate subterminal line; a terminal series of blackish dots; cilia whitish-grey. Hindwings with termen slightly sinuate; pale-grey; cilia pale-grey.

Readily distinguished from *H. oödes* and *H. amydrastis* by the discal dots on forewings.

Type in Coll. Turner.

N.A. Port Darwin, in October and November; five specimens received from Mr. F. P. Dodd.

**HYPOLOPHOTA AGASTA** n. sp.

[ἀγαστος, admirable.]

♂ ♀. 31-32 mm. Head, palpi, and antennæ whitish. Thorax whitish, in ♂ greenish-tinged. Abdomen whitish-ochreous. Legs reddish-fuscous; posterior pair mostly whitish. Forewings elongate-oval, costa strongly arched, apex rounded, termen rounded, scarcely oblique; 9 from 8 before 7; reddish-fuscous, the greater part of disc suffused with whitish-green or whitish in ♂; in ♀ grey, without green suffusion, and with all markings less distinct; four or five parallel wavy transverse lines in basal  $\frac{1}{3}$ ; a transverse linear blackish discal dot; several curved wavy transverse lines in terminal  $\frac{1}{4}$  of disc; a terminal series of dark-fuscous dots; cilia whitish with pale-fuscous median line. Hindwings elongate, termen rounded; deep-yellow; cilia pale-yellow.

Type in Coll. Turner.

N.A. Port Darwin, ♀ in November. N.Q. Kuranda, ♂ type in November. Three specimens received from Mr. F. P. Dodd. Stannary Hills, one ♂ received from Dr. T. Bancroft.

**DOLOËSSA VIRIDIS.**

*Viridis*, Zel.

♂ ♀. 20-32 mm. Head, palpi, and antennæ whitish. Thorax green. Abdomen and legs whitish. Forewings elongate-oblong; costa strongly arched at base; thence nearly straight; apex rectangular; termen straight, rounded beneath; bright pea-green, but easily fading; markings pale-brownish; a basal costal spot; a circular median discal spot, another on dorsum at  $\frac{2}{5}$ , and a third between these, the last two connected by a narrow bridge; a curved line of similar but minute dots at  $\frac{4}{5}$ ; cilia green. Hindwings with termen rounded; white; cilia white.

N.Q. Cairns; Kuranda, 11, 12. Four specimens.

**HETEROMICTA PEODES.**

Q. Rosewood, in September; one specimen closely resembling type.

**HETEROMICTA ALYPETA** n. sp.

[ἀλυπητος, cheerful.]

♂. 18 mm. Head, palpi, and antennæ whitish. Thorax whitish with some greenish scales; posterior crest dark-fuscous.

Abdomen pale-ochreous. Legs greenish-fuscous; posterior pair suffused with whitish. Forewings elongate, costa slightly arched, apex rounded, termen obliquely rounded; 4 and 5 connate; greenish-fuscous; central area occupied by a large purplish-brown blotch containing two darker discal dots; a dentate antemedian line slightly indicated; a finely dentate slender postmedian line from  $\frac{2}{3}$  costa, curved outwardly, and then inwardly to  $\frac{3}{4}$  dorsum; a dark-fuscous interrupted terminal line; cilia greenish. Hindwings elongate, termen rounded; pale-ochreous; termen irrorated with greenish; cilia whitish with a greenish basal line.

Type in Coll. Turner.

Q. Rosewood, in September; one specimen.

#### SUBFAM. CRAMBINÆ.

#### CRAMBUS HAPLORUS n. sp.

[ἀπλорος, simple.]

♀. 17 mm. Head, palpi, and thorax pale shiny-ochreous. Antennæ grey-whitish. Abdomen ochreous-whitish. Legs grey; posterior pair whitish. Forewings moderately elongate, costa gently arched, apex rounded, termen gently rounded, oblique; pale-ochreous with a shiny gloss; a blackish discal dot at  $\frac{3}{5}$ ; an obscure transverse series of minute blackish dots at  $\frac{5}{6}$ ; a terminal series of minute blackish dots; cilia ochreous-whitish. Hindwings with termen rounded; white; cilia white.

Nearest *C. leptogrammellus* but smaller, forewings with apex rounded, not acute, and without streaks.

Type in Coll. Turner.

N.A. Port Darwin, in October; one specimen received from Mr. F. P. Dodd.

#### GEN. ANACLASTIS.

It is incorrect to state that vein 11 of the forewings is absent in this genus. Of the four veins 7, 8, 9, 10, two are absent by coincidence. It is absolutely a matter of taste which of these four be considered present, which absent, but vein 11 which arises separately from the cell is developed. (P.R.S.Q. 1904, p. 164.)

**PLATYTES SUBFUMALIS.**

*Talis subfumalis*, Hmps., P.Z.S. 1895, p. 968.

♂ ♀. 21-22 mm. Head brownish-fuscous. Palpi elongate (4); brownish-fuscous. Antennæ brownish-fuscous; ciliations in ♂ minute. Thorax brownish-fuscous; patagia with a central white stripe. Abdomen ochreous-grey. Legs fuscous; posterior pair ochreous-fuscous. Forewings narrow, costa slightly arched near base, then straight to apex, apex round-pointed, termen slightly oblique, rounded beneath; ochreous-brown, centre and termen suffused with fuscous; markings shining-white; a longitudinal subcostal streak from near base to  $\frac{1}{4}$ ; two more or less elongate spots or streaks in a line with this in the direction of mid-termen, the posterior with a short additional streak on its costal side; a similar interrupted line from near base parallel to dorsum; a terminal series of spots more or less elongate; cilia grey. Hindwings with termen rounded; grey; cilia grey.

N.A. Port Darwin, in November; two specimens received from Mr. F. P. Dodd.

**PLATYTES PHÆOCHORDA** n. sp.

[*φαοχορδος*, dusky-lined.]

♂ ♀. 14-17 mm. Head white. Palpi very long (6); grey, inner surface whitish-grey. Antennæ grey, towards base whitish; ciliations in ♂ minute. Thorax and abdomen white. Legs whitish; tarsi and anterior tibiæ grey. Forewings elongate, costa gently arched, apex rounded, termen bowed, oblique; white; with fuscous streaks along veins, and a broader subcostal streak from base to apex; a narrow transverse dark-fuscous mark, margined with white, cutting subcostal streak at  $\frac{2}{3}$ ; a dark-fuscous terminal line extending round apex; cilia white, with a dark-fuscous line at  $\frac{1}{3}$ , apices grey. Hindwings with termen rounded; whitish; terminal edge narrowly fuscous; cilia white.

Type in Coll. Turner.

N.A. Port Darwin, in November; three specimens received from Mr. F. P. Dodd.

**GEN. UBIDA.**

The tongue is present in this genus, though not very strongly developed.



**UBIDA HETÆRICA** n. sp.

[ἑταιρικός, comrade-like.]

♀. 46 mm. Head brownish-ochreous. Palpi 5; pale brownish-ochreous, towards apex fuscous. Antennæ ochreous-whitish. Thorax pale brownish-ochreous; patagia darker. Abdomen ochreous-whitish. Legs ochreous-whitish; anterior pair pale-fuscous. Forewings elongate-oblong, costa gently arched [apex broken], termen rounded beneath; pale brownish-ochreous; a broad darker subcostal streak, leaving costal edge pale; a broad median pale stripe, bordered above and beneath by fuscous streaks, the dorsal edge giving off three acute teeth beyond cell, cutting the dorsal fuscous streak; cilia whitish. Hindwings with termen rounded; grey; cilia whitish.

Closely allied to *U. ramostriella*, Wlk., but differing much in coloration. The type (in Coll. Turner), otherwise perfect, has lost the apical portions of both forewings.

N.A. Port Darwin, in November; one specimen received from Mr. F. P. Dodd.

**CHILO AGLAOPIS** n. sp.

[ἀγλαωπὺς, brilliant.]

♂ ♀. 16-18 mm. Head orange-ochreous. Palpi moderate (3); orange-ochreous. Antennæ grey-whitish, towards apex grey; in ♂ thickened and shortly ciliated ( $\frac{1}{3}$ ). Thorax orange-ochreous; patagia shining-white. Abdomen whitish, dorsum towards base suffused with orange-ochreous. Legs whitish-ochreous; femora and posterior tibiæ whitish. Forewings elongate-triangular, costa gently arched, apex acute, termen straight, oblique; shining-white; an orange-ochreous streak along costa from base to apex; a similar dorsal streak, its upper edge rather irregular and slenderly margined with blackish; a dark-fuscous terminal line not extending to apex, cilia orange-ochreous. Hindwings with termen rounded, slightly sinuate; whitish; cilia whitish.

Type in Coll. Turner.

N.A. Port Darwin, in October and February; two specimens received from Mr. F. P. Dodd.



## DIPTYCHOPHORA POGONIAS n. sp.

[πωγωνίας, bearded.]

♂. 12-13 mm. Head, palpi, antennæ, and thorax pale-fuscous. Abdomen whitish irrorated with fuscous. Legs whitish; anterior pair pale-fuscous. Forewings triangular, costa gently arched, apex rounded, termen nearly straight, oblique, deeply incised at  $\frac{1}{3}$  from apex; whitish closely irrorated with pale-fuscous; antemedian line obsolete; a fine pale-fuscous line from  $\frac{2}{3}$  costa, curved outwards to approach near termen below incision, then inwardly curved to  $\frac{5}{8}$  dorsum; this is succeeded by a fine whitish line, and this again by a second fine pale-fuscous line; beyond this the terminal area is tinged with ochreous; a fine short oblique white streak from costa near apex, and a second at apex; a series of six or seven oblong black dots from tornus to incision; cilia fuscous with metallic reflections, interrupted by whitish at and below incision and at tornus. Hindwings with termen rounded; pale-fuscous; in ♂ with a strong tuft of pale-ochreous hairs from base of costa on upperside, extending to  $\frac{4}{5}$ ; cilia whitish with a pale-fuscous basal line.

Extremely similar to *D. ochracealis*, but at once distinguished by the bearded hindwings of ♂.

Type in Coll. Turner.

Q. Bunya Mountains, in December; four specimens.

## GEN. NEPHALIA nov.

[νηφαλιος, abstemious.]

Frons flat, not projecting. Tongue absent. Palpi long, porrect. Maxillary palpi triangularly dilated. Forewings with all veins present, 8 and 9 stalked, 11 running into 12. Hindwings with 4 and 5 short-stalked, 6 from upper angle of cell.

The absence of the tongue is very unusual in this subfamily, but the genus must be referred here. The well-marked pectination on median vein of hindwings forbids its reference to the Schœnobianæ. From *Ubida*, in which the tongue is not really basent, it differs in vein 11 running into 12, and in the ♂ antennæ not being pectinate.

**NEPHALIA CRYPSIMETALLA** n. sp.

[κρυψιμεταλλος, with hidden metal.]

♂. 16-20 mm. Head ochreous-whitish. Palpi fuscous irrorated with ochreous-whitish. Antennæ ochreous-whitish; in ♂ thickened and minutely ciliated ( $\frac{1}{5}$ ). Thorax ochreous-whitish irrorated with fuscous. Abdomen ochreous-whitish. Legs ochreous-whitish; anterior pair suffused with pale-fuscous. Forewings moderately elongate, costa gently arched, apex round-pointed, termen gently rounded, slightly oblique; ochreous-whitish more or less suffused with pale-fuscous and irrorated sparsely with dark-fuscous; a suffused darker median streak from base nearly to middle; a blackish discal dot at  $\frac{2}{3}$ ; a suffused dark subterminal line, thicker and more distinct toward tornus, with a leaden-metallic lustre; a terminal series of blackish dots; cilia ochreous-whitish with a pale-fuscous sub-basal line. Hindwings with termen rounded, slightly sinuate; whitish; a narrow fuscous terminal line not extending to tornus; cilia whitish, sometimes with a pale-fuscous sub-basal line.

Type in Coll. Turner.

N.A. Port Darwin, in December and February; two specimens received from Mr. F. P. Dodd.

**GEN. CHIONOBOSCA** nov.

[χιονοβοσκος, snow-clad.]

Frons with short truncate conical projection. Tongue present. Palpi long, porrect. Maxillary palpi triangularly scaled. Antennæ in ♂ thickened; ciliations imperceptible. Forewings with 7 separate, 8 and 9 stalked, 10 separate, 11 running into 12. Hindwings with 5 absent, 6 from upper angle of cell.

In the neighbourhood of *Chilo*. Sufficiently distinguished by the absence of 5 of hindwings, and anastomosis of 11 of forewings.

**CHIONOBOSCA ACTINOPIS** n. sp.

[ἀκτινωπης, shining.]

♂ ♀. 20-22 mm. Head fuscous-brown. Palpi elongate (5); fuscous-brown, beneath white. Antennæ fuscous; in ♂ much thickened, ciliations imperceptible. Thorax fuscous-brown; patagia

white. Abdomen whitish. Legs whitish; anterior and middle pairs with some fuscous suffusion. Forewings elongate, costa slightly arched, apex round-pointed, termen scarcely oblique, rounded beneath; shining white; well-marked costal and dorsal fuscous-brown streaks; cilia white, at apex and tornus fuscous-brown. Hindwings with termen rounded; white; cilia white. Underside dull-white.

Type in Coll. Turner.

N.A. Port Darwin, in December and February; two specimens received from Mr. F. P. Dodd.

### GEN. DIADEXIA.

I was wrong in describing vein 6 of hindwings as arising from the upper angle of the cell (P.R.S.Q. 1905, p. 56). It arises well below the angle as in *Talis*, of which this genus is a derivative. I believe *Diadexia parodes* is the same species as *Surattha brunnea*, Hmps., which I have not seen described.

### DIADEXIA ARGYROPASTA n. sp.

[ἀργυροπαστος, silver-sprinkled.]

♂♀. 13-15 mm. Head and thorax brown. Palpi long ( $4\frac{1}{2}$ ); brown, towards apex suffused with fuscous. Antennæ dark-fuscous finely annulated with white; in ♂ evenly bipectinate, apical  $\frac{1}{5}$  simple, pectinations 4. Abdomen fuscous. Legs fuscous; posterior pair ochreous-whitish. Forewings elongate, costa gently arched, apex rounded, termen straight, slightly oblique; brown, towards apex suffused with fuscous; a short silvery median streak from base; costal narrowly whitish to  $\frac{4}{5}$ , where is a white spot with some silvery scales; a circular white subcostal spot at  $\frac{3}{5}$ , connected with dorsum by some silvery scales; sometimes connected with costa by a whitish streak; a silvery white spot on dorsum at  $\frac{2}{5}$  succeeded by a blackish suffusion; a white dot on costa at  $\frac{1}{5}$  from which proceeds a silvery line at first outwards, then parallel with termen to before tornus; cilia silvery-white with a fuscous median line beneath apex. Hindwings with termen rounded; dark-grey; cilia grey.

Agrees with *Diadexia* in neuration, though not near specifically, and with different ♂ antennæ.

N.A. Port Darwin, in October and November; four specimens received from Mr. F. P. Dodd.

## GEN. MICROTALIS nov.

[μικρος, small; τάλis, a maiden.]

Frons flattened, without prominence. Tongue present but weakly developed. Labial palpi long, porrect. Maxillary palpi triangularly dilated. Forewings with all veins present, 7 separate, 8 and 9 stalked, 11 running into 12. Hindwings with 4 and 5 stalked, or 5 absent, 6 from well below angle of cell.

Differs from *Talis* in the absence of any frontal projection and in vein 11 running into 12.

Type *M. epimetalla*.

## MICROTALIS EPIMETALLA n.sp.

[ἐπιμεταλλος, overlaid with metal.]

♀. 10-12 mm. Head, palpi, antennæ, and thorax fuscous. Abdomen grey. Legs fuscous; tarsi annulated with whitish; posterior pair except tarsi whitish. Forewings elongate-triangular, costa rather strongly arched, apex rounded, termen bowed, oblique; fuscous mixed with whitish; an incomplete suffused median whitish fascia; a silvery discal dot at  $\frac{3}{5}$ ; a fine silvery transverse line at  $\frac{5}{6}$  bowed outwards above middle; a broad, interrupted, subterminal whitish fascia; cilia grey with silvery reflections. Hindwings with termen rounded; vein 5 absent; grey; cilia grey.

Type in Coll. Turner.

N.A. Port Darwin, in October; two specimens received from Mr. F. P. Dodd.

## MICROTALIS ACROCAPNA n.sp.

[ἀκροκαπνος, fuscous at the apex.]

♂. 16 mm. Head and thorax whitish irrorated with ochreous-fuscous. Palpi whitish irrorated with fuscous. Antennæ whitish with fuscous annulations. Abdomen whitish. Legs whitish; inner aspect of spurs fuscous. Forewings elongate-triangular, costa scarcely arched, apex acute, slightly produced, termen sinuate, oblique; whitish; obscurely streaked with brownish-ochreous mixed with dark-fuscous; a fine subcostal streak from base to  $\frac{1}{5}$ ; short fine oblique streaks from costa at  $\frac{1}{6}$  and  $\frac{1}{3}$ ; a broad irregular median streak from base giving off several suffused streaks dorsally, and

ending in 5 or 6 streaks, diverging towards termen; a fine line from beneath costa at  $\frac{2}{3}$  obliquely outwards almost to termen, then rounded and diverging from termen, but above tornus acutely angled and running into termen; a prominent triangular fuscous subapical spot on costa; an interrupted fuscous terminal line; cilia white, apices fuscous. Hindwings with termen sinuate; 4 and 5 stalked; whitish; cilia white.

Not closely allied to the preceding, but I think it must be placed in the same genus. The variations in 5 of hindwings occur also in *Talis*.

Type in Coll. Turner.

N.A. Port Darwin, in December; one specimen received from Mr. F. P. Dodd.

### **TALIS TRISSOMOCHLA** n. sp.

[τρισσομοχλος, three-barred.]

♂. 13-17 mm. Head orange. Palpi moderate (3); orange. Antennæ whitish-grey; in ♂ thickened and minutely ciliated ( $\frac{1}{4}$ ). Thorax orange, with a white central stripe. Abdomen white, dorsum of basal segments and of base of tuft orange. Legs white; anterior pair pale fuscous. Forewings triangular, costa moderately arched, apex round-pointed, termen straight, rounded beneath, slightly oblique; markings silvery-white, narrowly edged with blackish; a streak along costa from near base to near middle, gradually diverging from costa and thickened, then abruptly curved upwards from near middle of disc to apex; a second straight broad streak from base beneath mid-line, ending abruptly shortly before termen; a third narrower streak along dorsum nearly to tornus; a fine blackish terminal line; cilia white, apices dark-fuscous. Hindwings with termen rounded; grey; cilia white.

Nearest *T. aurantiaca*, Meyr., but very distinct.

Type in Coll. Turner.

N.A. Port Darwin, in January and November; two specimens received from Mr. F. P. Dodd.

## SUBFAM. SCHENOBIANÆ.

## GEN. POGONOPTERA nov.

[πωγωνοπτερος, with bearded wings.]

Frons rounded, slightly projecting. Tongue present but weakly developed. Palpi very long, porrect. Maxillary palpi strong, dilated at apex. Antennæ in ♂ thickened and minutely ciliated. Tibiæ with outer spurs about half length of inner. Forewing of ♂ with tornus distorted and clothed with a tuft of long hair; 2 and 3 stalked from  $\frac{4}{5}$  cell, 4 and 5 connate from angle, 7, 8, 9 stalked, 11 free. Hindwing in ♂ with a long pencil of hairs from base on dorsum; 4 and 5 connate, 6 and 7 connate, 7 anastomosing very shortly with 8.

Sufficiently distinguished by the neuration, but also with unusual secondary male sexual characters.

## POGONOPTERA POLIOLEUCA n. sp

[πολιολευκος, grey-white.]

♂. 20 mm. Head whitish. Palpi long (4); grey; inner surface white. Antennæ grey-whitish. Thorax grey. Abdomen and legs whitish. Forewings elongate-triangular, costa nearly straight, apex pointed, termen straight, oblique, crenulate, tornus in ♂ distorted and covered with long hairs, which on underside form a distinct tuft; grey; a broad dorsal white streak broadening to tornus; some scattered blackish scales above dorsal streak and in cell; towards termen some fine white streaks on veins finely irrorated with blackish scales; a strong blackish terminal line; cilia white. Hindwings with termen sinuate; white; a fine dark-fuscous terminal line; cilia white.

Type in Coll. Turner.

N.Q. Townsville; one specimen.

## DONACAULA CATOXODES.

*Donacula catoxodes*, Meyr.

N.Q. Kuranda, in April (Dodd).



**DONACAULA PENTAMITA** n. sp.

[πενταμιτος, five-threaded.]

♂ ♀. 14-16 mm. Head, thorax, and abdomen white. Palpi very long (5); white, outer surface fuscous. Antennæ white; in ♂ serrate with short ciliations ( $\frac{2}{3}$ ). Legs white; anterior pair fuscous on inner aspect. Forewings elongate, costa straight, apex rounded, termen bowed, rather strongly oblique; snow-white; with five fuscous streaks; first rather broad on costa from base to  $\frac{2}{3}$ ; second from base to costa at  $\frac{3}{4}$ ; third from fold at  $\frac{1}{6}$ , slightly bowed, running near second and touching it, or nearly so, beneath costa, ending on costa near apex; fourth from dorsum at  $\frac{1}{4}$  to apex; fifth from dorsum at  $\frac{3}{4}$  to apex; a fuscous terminal line; cilia white with a faint fuscous median line. Hindwings with termen rounded; snow-white; without markings, or exceptionally with faint subterminal and submarginal fuscous lines; cilia white.

Type in Coll. Turner.

N.A. Port Darwin, in October and November; five specimens received from Mr. F. P. Dodd.

**STYPHLOLEPIS SQUAMOSALIS.**

I have one example of this fine species (♀) which differs in neururation from that given by Hampson (P.Z.S. 1895, p. 912). In the forewings veins 6 and 7 are not stalked, but are well separated at origin. In the hindwing vein 7 does not anastomose with 8, though closely applied to it for a short distance.

**SCHÆNOBIUS CHIONOTUS.**

*Schænobius chionotus*, Meyr., Tr. E.S. 1889, p. 519.

N.A. Port Darwin (Dodd). Also from New Guinea.

## SUBFAM. CHRYSAUGINÆ.

**CURICTA CÆLOCROSSA** n. sp.

[κοιλοκροστος, with hollowed margin.]

♂ ♀. 36-43 mm. Head whitish-ochreous. Palpi ascending, in ♂  $2\frac{1}{2}$ , in ♀ 4, second joint in ♀ very elongate; brownish-ochreous with some fuscous irroration. Antennæ and thorax ochreous-grey. Abdomen ochreous-grey at base; dorsum suffused with fuscous;



underside and apex ochreous-whitish with reddish suffusion. Legs whitish-ochreous mixed with fuscous and reddish. Forewings subtriangular, costa strongly arched at base, then slightly concave, apex acute, termen deeply concave beneath apex, with a strong rounded projection on vein 4, thence straight to tornus; in ♂ with a subcostal tuft of pale-ochreous hairs beneath near base; reddish-grey, in ♀ greenish-grey; a faintly marked slender outwardly curved line from  $\frac{1}{3}$  costa to  $\frac{1}{3}$  dorsum; a similar strongly sinuate line from  $\frac{4}{5}$  costa to before tornus; sometimes with a reddish-fuscous spot on it near dorsum; a similar faint subterminal line; some reddish-fuscous suffusion on termen beneath apex; cilia ochreous-whitish. Hindwings with termen rounded, sinuate beneath apex; fuscous; a reddish-terminal band; cilia ochreous-whitish, apices reddish.

Type in Coll. Turner.

N.Q. Kuranda, in June and December; two specimens received from Mr. F. P. Dodd.

#### SUBFAM. PYRALINÆ.

#### ENDOTRICA LOBIBASALIS.

*Endotricha lobibasalis*, Hmps.

♂. 20-24 mm. Head, palpi, and thorax ochreous-grey; patagia in ♂ slender and much elongate, reaching mid-abdomen. Antennæ ochreous-whitish; in ♂ slightly dentate, ciliations 1. Abdomen ochreous-grey with some fuscous scales. Legs whitish-ochreous with some fuscous scales. Forewings triangular, costa sinuate, with a strong projecting crest at  $\frac{1}{5}$ , rather strongly excavated before apex, apex pointed, termen sinuate, scarcely oblique; ochreous-grey; a grey discal dot beneath costa at  $\frac{2}{3}$ ; a few grey scales towards base; a slender straight pale submarginal line; a slender fuscous terminal line; cilia pale-reddish. Hindwings with termen rounded; ochreous-grey; an elongate-oval central ochreous blotch as far as middle; cilia whitish with a reddish-fuscous basal line. Underside of forewings with an elongate patch of ochreous scales above dorsum; of hindwings with a general fuscous irroration, and a dentate fuscous postmedian transverse line.

N.Q. Kuranda, in July, October, and November; four specimens received from Mr. F. P. Dodd.

**ENDOTRICHA PYRRHOCOSMA** n. sp.[*πυρροκοσμος*, adorned with purple-red.]

♂. 18 mm. Head, palpi, thorax, and abdomen whitish-ochreous. Antennæ ochreous-whitish; ciliations in ♂ rather long ( $1\frac{1}{2}$ ). Legs whitish-ochreous with fuscous irroration. Forewings elongate-triangular, costa slightly concave, arched towards apex, apex pointed, termen slightly bowed, oblique; pinkish-grey; a darker basal area, bordered by some dark-fuscous scales at  $\frac{1}{4}$ , and succeeded by a pale-ochreous suffusion; a dark-fuscous discal dot beneath mid-costa; costa obscurely strigulated with whitish-ochreous; a whitish submarginal line from costa, soon lost in disc; a slender interrupted fuscous terminal line; cilia pinkish mixed with fuscous. Hindwings with termen rounded; as forewings but basal patch bright reddish-purple. Underside similar; hindwings without basal patch, but with a fuscous postmedian line edged with whitish.

♀. 20 mm. Differs in greater obscurity of markings and absence of reddish-purple basal patch on hindwings.

Type in Coll. Turner.

N.Q. Kuranda, in October; three specimens, one ♂, two ♀, received from Mr. F. P. Dodd.

**ENDOTRICHA MELANCHROA** n. sp.[*μελαγχροος*, dark.]

♀. 17-20 mm. Head, palpi, antennæ, thorax, and abdomen fuscous. Legs fuscous; tarsi annulated with whitish; posterior pair and central part of middle tibiæ whitish above. Forewings elongate-triangular, costa straight nearly to apex, apex rounded, termen bowed, slightly oblique, fuscous; a dark-fuscous basal patch limited by a suffused whitish line from  $\frac{1}{4}$  costa to  $\frac{1}{3}$  dorsum, slightly dentate beneath costa and below middle; some minute whitish costal dots; cilia fuscous with a darker basal line. Hindwings with termen rounded; pale-fuscous; cilia pinkish-white with a fuscous basal line.

In the forewing 11 anastomoses at a point with 12, an exceptional character in this genus, from which it may later be separated; 4 and 5 are stalked in both wings.

Type in Coll. Turner.

N.A. Port Darwin, in December; two specimens received from Mr. F. P. Dodd.

**SCENIDIOPIS IOCHYTA** n. sp.

[ἰοχυτος, suffused with violet.]

♀. 18 mm. Head, palpi, and thorax dark-fuscous with a few purple-reddish scales. Antennæ dark-fuscous. Abdomen dark-fuscous with a few purple-reddish scales, bases of segments whitish. Legs dark-fuscous; tarsi annulated with whitish; posterior pair partly suffused with whitish. Forewings elongate-triangular, costa straight to near apex, apex rounded, termen bowed, oblique; dark-fuscous irrorated with purple-reddish; markings white; a conspicuous line from  $\frac{1}{4}$  costa to  $\frac{1}{4}$  dorsum, slightly outwardly curved; second line from  $\frac{5}{6}$  costa, soon narrowing and twice sinuate to  $\frac{5}{6}$  dorsum; three white dark-centred dots on costa between lines; a dark white-centred median discal dot; cilia fuscous, bases darker, towards tornus interrupted by whitish. Hindwings with termen rounded; as forewings but purple-reddish irroration more conspicuous posteriorly; first line slender, sinuate; second line crossing mid-disc, sharply dentate. Underside similar but first line less marked, second line dentate in both wings, white dots on basal part of costa of forewings.

Type in Coll. Turner.

N.A. Port Darwin, in December; one specimen received from Mr. F. P. Dodd.

**GEN. TANYETHIRA** nov.

[τάνυθεϊρος, long-haired; in allusion to the antennæ.]

Frons flat. Tongue well developed. Palpi rather slender, ascending, not reaching or barely reaching vertex. Maxillary palpi short, filiform. Antennæ in ♂ with very long ciliations. Forewings with 4 and 5 closely approximated for some distance, or stalked. Hindwings with 4 and 5 closely approximated for some distance.

Type: *Endotricha duplicilinea*, Hmps.

Allied to *Gauna* and *Curena*, the former distinguishable by the peculiar palpi, the latter by 4 and 5 of forewings not being closely approximated for some distance.

**TANYETHIRA DUPLICILINEA.**

*Endotricha duplicilinea*, Hmps., Ill. Het. ix, p. 159, Pl. 171, f. 21; Moths Ind. iv, p. 136.

♂ ♀. 13-16 mm. Head, palpi, antennæ, thorax, and abdomen pale ochreous-brown. Antennal ciliations in ♂ extremely long (8). Legs pale brownish-ochreous. Forewings triangular, costa straight, gently arched shortly before apex, apex pointed, termen slightly bowed, oblique; 4 and 5 closely approximated for some distance; pale ochreous-brown; two oblique paler lines; first from  $\frac{1}{3}$  costa to  $\frac{1}{3}$  dorsum limiting a rather darker basal area; second from  $\frac{5}{6}$  costa to  $\frac{2}{3}$  dorsum; a dark-fuscous discal dot beneath costa before middle; costa between lines with pale strigulations; cilia ochreous-whitish with a dark basal line. Hindwings with termen nearly straight; like forewings but rather paler; second line from  $\frac{2}{3}$  costa; cilia without basal dark line. Underside similar but lines less distinct.

N.A. Port Darwin, 1. N.Q. Cairns, 7; Kuranda, 10, 12; four specimens. Also from Ceylon.

**TANYETHIRA HEMICNECA** n. sp.

[ἑμικνήκος, half-yellowish.]

♀. 20-21 mm. Head and palpi fuscous. Antennæ whitish-ochreous. Thorax whitish-ochreous mixed with fuscous. Abdomen dark-fuscous. Legs fuscous mixed with whitish-ochreous. Forewings triangular, costa straight to near apex, apex rounded, termen bowed, oblique; pale-fuscous; a suffused darker basal patch; 4 and 5 stalked; a dark-fuscous discal dot beneath costa before middle; two suffused dark oblique lines from before apex to dorsum beyond middle; cilia pale-fuscous with a whitish-ochreous basal line. Hindwing with termen rounded; pale-ochreous; two nearly approximated, interrupted, postmedian, fuscous lines; followed by a fuscous suffusion, absent towards tornus; a fuscous terminal line; cilia as forewings. Underside similar; hind wings with a dark-fuscous discal dot beneath costa before middle.

Type in Coll. Turner.

N.Q. Kuranda, in July and October; two specimens received from Mr. F. P. Dodd.

## GEN. ARESCOPTERA nov.

[ἀρεσκοπτερος, with pleasing wings.]

Frons flat. Tongue well developed. Palpi slender, cylindrical, ascending, moderately long but not reaching vertex, apex truncate. Antennæ in ♂ with moderately long ciliations. Maxillary palpi short, filiform. Forewings with 4 and 5 connate, immediately diverging, 7, 8, 9 stalked, 10 and 11 free. Hindwings with 4 and 5 connate, immediately diverging, 7 anastomosing with 8 for some distance.

In structure this approaches *Persicoptera*, but in that genus 11 anastomoses with 12, and the palpi are much shorter, with second joint considerably thickened.

## ARESCOPTERA IDIOTYP A n. sp.

[ιδιοτυπος, with peculiar markings.]

♂. 14-15 mm. Head whitish. Face whitish with a transverse fuscous line near upper edge. Palpi  $1\frac{1}{2}$ ; whitish, apices of joints fuscous. Antennæ whitish; ciliations in ♂ 2. Thorax whitish. Abdomen dark-fuscous mixed with whitish. Legs ochreous-whitish irrorated, and tarsi annulated, with dark-fuscous; anterior coxæ pinkish-tinged. Forewings triangular, costa straight to near apex, then strongly arched, apex rounded, termen slightly bowed, oblique; whitish; a large pale-grey basal patch, posterior edge sharply defined, indented below middle, from  $\frac{2}{5}$  costa to  $\frac{2}{5}$  dorsum; a dark-fuscous, rather large, apical spot; a rounded grey terminal blotch, toward edge suffused with dark-fuscous; a dark-fuscous discal dot beneath mid-costa; an interrupted fuscous terminal line; cilia whitish with some fuscous scales. Hindwings with termen gently rounded; pinkish-white; a fuscous postmedian transverse line, twice sinuate; an interrupted fuscous terminal line; cilia whitish with some fuscous bars, apices pinkish. Underside similar, but forewings suffused with fuscous, with a whitish subapical bar from costa.

Type in Coll. Turner.

Q. Eumundi, near Nambour, 10; Brisbane. Two specimens.

## GEN. APOBLEPTA nov.

[ἀποβλεπτος, admired.]

Frons flat. Tongue present but weakly developed. Palpi ascending, smooth-scaled, cylindrical, not reaching vertex. Apex of terminal joint acute. Maxillary palpi minute, filiform. Antennæ in ♂ thickened, ciliations minute. Forewings with 4 and 5 approximated for some distance, 7, 8, 9 stalked. Hindwings with 4 and 5 well separated at origin, 8 anastomosing with cell beyond middle and with 7 nearly to apex.

## APOBLEPTA EPICHARIS n. sp.

[ἐπιχαρις, pleasing.]

♂ 18 mm., ♀ 39 mm. Head and face white. Palpi dark-fuscous; anterior surface and apex white. Antennæ white; in ♂ thickened, ciliations minute. Thorax and abdomen white. Legs white; anterior tibiæ dark-fuscous at base and apex; posterior tarsi with dark-fuscous spots. Forewings elongate, costa gently arched, apex rectangular, termen strongly bowed, slightly oblique; white partly suffused with whitish-grey; a fuscous dot on costa at  $\frac{1}{3}$ ; a fuscous line from costa at  $\frac{4}{5}$ , outwardly bowed, interrupted by a longitudinal oval brownish-ochreous spot in middle, ending on  $\frac{2}{3}$  dorsum; this is followed by a parallel suffused pale-grey line; a fuscous line close to termen; cilia grey mixed with white. Hindwings with termen slightly sinuate beneath apex, strongly bowed above middle; as forewings but postmedian line traceable towards costa only, no ochreous spot.

Type in Coll. Turner.

N.Q. Kuranda, in April; one specimen received from Mr. F. P. Dodd. Evelyn Scrub near Herberton, in February and November; three specimens from the same collector.

## GEN. ANALCINA nov.

[ἀναλκινος, weak.]

Frons flat. Tongue well developed. Palpi ascending, thickened with rough hairs, reaching vertex; apex of terminal joint rather obtuse. Antennæ in ♂ with tufts of long cilia. Maxillary palpi



moderate, hairy. Forewings with 2 from cell, 3 and 4 stalked, 5 absent (coincident with 4), 7, 8, 9, 10, 11 stalked. Hindwings with 3 and 4 well separated at origin, 5 absent, 7 anastomosing strongly with 8.

Allied to *Cangetta* and *Petta*. In the latter genus I think 4 and 5 are coincident, 2 present but stalked with 3, 4.

### ANALCINA PENTHICA n. sp.

[πενθικός, mournful.]

♂ ♀. 10 mm. Head, palpi, thorax, and abdomen fuscous. Antennæ ochreous-whitish annulated with fuscous, ciliations in ♂ 4. Legs ochreous-whitish; anterior pair, lower half of middle femora, and upper half of middle tibiæ fuscous. Forewings elongate-triangular, costa straight to near apex, apex rounded, termen nearly straight, slightly oblique; fuscous; two ochreous-whitish transverse lines; first slightly before middle, straight; second at  $\frac{3}{4}$ , slightly irregular; cilia fuscous. Hindwings with termen gently rounded; pale-fuscous; an ill-defined pale subterminal line; cilia pale-fuscous.

Type in Coll. Turner.

N.Q. Kuranda, in September, October, and April; three specimens received from Mr F. P. Dodd.

### GEN. CANGETTA.

*Cangetta*, Moore, Lep. Ceyl. iii, p. 214; Hmps., Tr. E.S. 1896, p. 487.

Forewings with the cell short ( $\frac{1}{3}$ ); 3, 4, 5 stalked, 7, 8, 9, 10, 11 stalked. Hindwings with the cell very short ( $\frac{1}{5}$ ); 4 and 5 long-stalked, 7 anastomosing with 8 for some distance.

### CANGETTA RECTILINEA.

*Cangetta rectilinea*, Moore, Lep. Ceyl. iii, p. 314, Pl. 182, f. 3; Hmps., Moths Ind. iv, p. 137.

N.A. Port Darwin, 1. N.Q. Kuranda, 10. Also from Ceylon.

### GEN. ACICYS nov.

[ἀκικυς, feeble.]

Frons rounded. Tongue well developed. Palpi ascending, not reaching vertex; second joint somewhat rough-scaled anteriorly;



terminal joint smooth, slender, acute. Maxillary palpi minute, filiform. Forewings with 3, 4, 5 connate from lower angle of cell, 6 separate at origin, 7, 8, 9, 10 stalked. Hindwings with 3, 4, 5 connate from angle of cell, 7 anastomosing strongly with 8.

Allied to *Cangetta* but more primitive in its neuration.

### ACICYS CLADAROPA n. sp.

[κλαδαρωπος, of fragile appearance.]

♂. 14 mm. Head and thorax white. Palpi white; second joint with a fuscous anterior dot at base and apex. Antennæ white. Abdomen white with some greyish suffusion. Legs white. Forewings elongate-triangular, costa straight to near apex [apex broken], termen slightly bowed, oblique; white suffused with pale-grey; an oblique fuscous line from costa before apex to  $\frac{2}{3}$  dorsum; several fuscous terminal dots beneath apex; cilia white. Hindwings with termen rounded; white; a greyish suffusion near base towards dorsum; a large fuscous subterminal blotch; a fuscous terminal line; cilia white.

Type (in poor condition) in Coll. Turner.

N.Q. Kuranda, in November; one specimen received from Mr. F. P. Dodd.

### GEN. HENDECASIS.

*Hendecasis*, Hmps., Moths Ind. iv, p. 140; Tr. E.S. 1896, p. 493.

Frons flat. Tongue present. Palpi porrect, long (over 2), longer in ♀ than ♂; second joint in ♂ thickened. Maxillary palpi in ♂ covered with a tuft of long expansile hairs; in ♀ triangularly scaled. Antennal ciliations in ♂ very short. Forewings with 7 absent (coincident with 8), 8, 9, 10 stalked. Hindwings with 3 and 4 stalked, 5 arising separately, 7 anastomosing with 8 for some distance.

Type: *H. duplifascialis*, Hmps. The stalking of 3 and 4 of the hindwings may be peculiar to the species described below, as Hampson does not allude to it.

### HENDECASIS MELALOPHALIS.

*Hendecasis melalophalis*, Hmps.

♂♀. 9-11 mm. Head, palpi, antennæ, and thorax white. Abdomen white, with a large dark-fuscous spot on dorsum of third

segment. Legs whitish; tarsi with one or two dark-fuscon annulations; spurs sometimes partly dark-fuscon. Forewings elongate-triangular, costa gently arched, apex rounded, termen obliquely rounded; white with some faint grey suffusion; a dark-fuscon dot on costa at  $\frac{1}{3}$ , giving rise to an outwardly curved grey line to  $\frac{1}{4}$  dorsum; a second line, less curved, from  $\frac{2}{3}$  costa to before tornus; a fuscous terminal line; cilia fuscous. Hindwings with termen rounded; as forewings but first line straight, terminating in a dark-fuscon dorsal dot, second line to  $\frac{2}{3}$  dorsum, approaching first.

N.Q. Kuranda, in September; three specimens received from Mr. F. P. Dodd.

### TRICHOPHYSETIS POLIOCHYTA n. sp.

[πολιοχυτος, suffused with grey.]

♂. 13-14 mm. Head whitish; face fuscous. Palpi dark-fuscous, internal surfaces whitish; labial palpi  $2\frac{1}{2}$ , maxillary 1. Thorax and abdomen whitish tinged with greenish-ochreous. Legs whitish. Forewings triangular, costa moderately arched, apex rounded, termen strongly bowed, scarcely oblique; vein 10 separate; grey, towards base and costa whitish; a greenish-ochreous outwardly curved line from  $\frac{1}{3}$  costa to  $\frac{1}{4}$  dorsum; a greenish-ochreous suffusion on apical area, prolonged as a line along upper  $\frac{2}{3}$  of termen; cilia whitish. Hindwings with termen rounded; grey; extreme base and a narrow terminal band whitish; oblique dark transverse lines at  $\frac{1}{4}$  and middle; cilia dark-grey.

Type in Coll. Turner. In the common *T. cretacea* vein 10 of forewings is stalked.

N.Q. Kuranda, in September and October; two specimens received from Mr. F. P. Dodd.

### HERCULIA CHYTRIODES n. sp.

[χυτρεωδης, like earthenware.]

♂♀. 17-24 mm. Head, palpi, thorax, and abdomen ochreous-whitish suffused with dull reddish-purple. Antennæ ochreous-whitish narrowly annulated with dull-reddish; ciliations in ♂  $1\frac{1}{2}$ . Legs ochreous-whitish densely irrorated with dull reddish-purple; posterior pair paler. Forewings triangular, costa gently arched, apex rounded, termen bowed, oblique; ochreous-whitish suffused

with dull reddish-purple; a pale transverse line at  $\frac{1}{4}$ ; a dark discal spot beneath mid-costa; a pale line from  $\frac{3}{4}$  costa to  $\frac{3}{4}$  dorsum, internally dark-edged, usually slightly bent outwards in middle; cilia dull reddish-purple, bases whitish, with darker sub-basal and subapical lines. Hindwings with termen rounded; colour as forewings but rather paler; slender, darker near base and beyond middle, cilia as forewings.

Type in Coll. Turner.

N.A. Port Darwin, in November and January; four specimens received from Mr. F. P. Dodd.

## FAM. PTEROPHORIDÆ.

### ALUCITA LEUCOPHASMA n. sp.

[λευκοφασμα, a white spectre.]

♂ ♀. 16-18 mm. Head white with some grey scales; face ochreous-whitish. Palpi and antennæ white. Thorax and abdomen white. Legs, anterior pair fuscous; middle pair white annulated with fuscous; posterior pair white. Forewings cleft to middle; white with some fuscous scales; a broad fuscous streak along costa, thickened at  $\frac{1}{4}$ , and giving off a transverse streak across base of cleft, but not reaching dorsum; first segment irrorated and suffused with fuscous, especially at base; second segment with a fuscous dot at  $\frac{3}{4}$  and some scattered fuscous scales; cilia white, interrupted by grey. Hindwings cleft at  $\frac{1}{3}$  and to near base; grey; cilia white, on costa of first segment grey.

This is the first described indigenous species, the three preceding being Indo-Malayan. There are, however, four indigenous species in New Zealand.

Type in Coll. Turner.

Q. Mount Tambourine, in November and March; four specimens.

## FAM. ZEUZERIDÆ.

### XYLEUTES ZOPHOPLECTA.

*Xyleutes zophoplecta*, Turn., Tr. R.S.S.A. 1902, p. 202.

This species is figured by Rothschild (Nov. Zool. 1903, Pl. xi, f. 10).

**XYLEUTES NEPHOCOSMA.**

*Xyleutes nephocosma*, Turn., Tr. R.S.S.A. 1902, p. 201.

*Xyleutes molitor*, Roths., Nov. Zool. 1903, p. 307, Pl. xi, f. 13.

**XYLEUTES DODDI.**

*Xyleutes doddi*, Roths., Nov. Zool. 1903, p. 306, Pl. xi, f. 11.

*Xyleutes coscinota*, Turn., Tr. R.S.S.A. 1903, p. 24.

I have received this species also from Port Darwin.

In this and the following instance I believe Mr. Rothschild's names have priority.

**XYLEUTES STRIGA.**

*Xyleutes striga*, Roths., Nov. Zool. 1903, p. 307, Pl. xi, f. 12.

*Xyleutes acontucha*, Turn., Tr. R.S.S.A. 1903, p. 25.

**XYLEUTES POLYPLOCA** n. sp.

[πολυπλοκος, intricate.]

♂ ♀. 44-48 mm. Head whitish-grey, margins blackish. Palpi blackish. Antennæ whitish-grey. Thorax grey, sides whitish-grey; a V-shaped blackish mark, its angle rounded, extending whole length of dorsum. Abdomen grey. Legs grey. Forewings elongate, costa strongly arched, apex rounded, termen very obliquely rounded; pale-grey with blackish strigulations and patches of darker grey, which are better marked in ♀; a basal patch extending to  $\frac{2}{5}$  costa and to  $\frac{1}{3}$  dorsum; a subtriangular small patch on costa at about  $\frac{2}{3}$ ; another on dorsum beyond middle; sometimes an elongate patch in disc between these two; some blackish reticulations near termen; cilia whitish-grey barred with dark-grey. Hindwings with termen slightly sinuate; pale-grey with indistinct darker strigulations towards termen; cilia as forewings.

Type in Coll. Turner.

N.A. Port Darwin, in November; two specimens received from Mr. F. P. Dodd.

**XYLEUTES PHÆOCOSMA** n. sp.

[φαιοκοσμος, with dusky ornament.]

♂ ♀. 114-184 mm. Head grey. Palpi blackish; second joint whitish beneath. Antennæ in ♂ blackish, in ♀ grey. Thorax grey,

a large dorsal V-shaped blackish patch. Abdomen blackish; base, terminal segments, and under-surface grey; third and fourth segments in ♂ narrowly whitish at base. Legs grey; tarsi blackish. Forewings elongate, costa rather strongly arched, apex rounded, termen nearly straight, strongly oblique; whitish densely irrorated with dark-fuscous; several dark-fuscous suffused patches in disc before and beyond middle; a series of blackish dots on veins in costal part of disc; an oblique black stripe, with surrounding black reticulation, from apex; cilia very short, black, apices white. Hindwings with termen slightly sinuate in ♂, more rounded in ♀; blackish; in ♂ grey along termen and terminal ends of veins; cilia as forewings.

Type in Coll. Turner.

N.A. Port Darwin, in November and December; three specimens received from Mr. F. P. Dodd.

### **XYLEUTES STENOPTILA** n. sp.

[στενοπτελος, narrow-winged.]

♂. 122 mm. Head, thorax, and abdomen whitish intimately mixed with fuscous so as to appear grey. Palpi anteriorly whitish, posteriorly dark-fuscous. Antennæ whitish, pectinations dark-fuscous. Legs grey, anterior pair more whitish. Forewings narrow-elongate, costa first straight then moderately arched, apex round-pointed, termen straight, very oblique, dorsum strongly sinuate; whitish finely irrorated with fuscous-grey; suffused darker markings; a blotch on costa at  $\frac{1}{4}$  and another on middle, ill-defined, connected in disc; a broad streak from beneath apex to above dorsum, narrower at extremities; cilia grey-whitish. Hindwings with termen nearly straight; grey; base of costa whitish; base, dorsal area, and a band along termen irrorated with whitish; cilia as forewings.

Type in Coll. Turner.

N.Q. Stannary Hills; one specimen received from Dr. T. Bancroft.

### **XYLEUTES METHYCHROA** n. sp.

[μεθυχροος, wine-tinged.]

♂ 64 mm., ♀ 96 mm. Head, palpi, antennæ, thorax, and abdomen grey; thorax in ♂ with a blackish V-shaped mark, its

posterior extremities thickened. Legs grey; tarsi fuscous with whitish annulations. Forewings elongate-oval, costa strongly arched, apex rounded, termen very obliquely rounded; whitish-grey tinged with purplish, coarsely reticulated with darker-grey; cilia whitish-grey barred with darker-grey. Hindwings elongate, termen sinuate; fuscous; cilia as forewings.

Easily distinguished by the purplish tinge of the wings.

N.Q. Herberton, in December and February; two specimens received from Mr. F. P. Dodd.

### FAM. HEPIALIDÆ.

#### ONCOPTERA MITOCERA n. sp.

[μτοκερος, thread-horned.]

♂ 32-46 mm., ♀ 43-56 mm. Head and thorax reddish-brown; in ♀ grey-brown. Palpi fuscous. Antennæ  $\frac{1}{8}$  to  $\frac{1}{10}$ , filiform, apical segments very slightly larger than basal; brownish-fuscous. Abdomen fuscous. Legs ochreous; posterior tibiæ in ♂ with a long broad tuft of curled hair from base, lying along abdomen. Forewings reddish-brown, in ♀ dark-brown, more or less marbled with pale-fuscous; sometimes with scattered whitish fuscous-edged spots; cilia reddish-brown barred with fuscous. Hindwings fuscous; with an ochreous-whitish patch at apex; cilia fuscous with a few ochreous-whitish scales.

I have a ♂ aberration with a whitish line from base to tornus, joined there by an oblique fusiform whitish streak, towards but not reaching apex. From the type species *mitocera* differs in the antennæ not being club-shaped, though they have a slight tendency to dilatation.

Type in Coll. Turner.

N.Q. Kuranda, 4, 5; Atherton; Herberton, 1. A series received from Mr. F. P. Dodd.

### FAM. EUPTEROTIDÆ.

#### EUPTEROTE DODDI n. sp.

♂. 96-128 mm. Face, palpi, thorax, abdomen, and legs concolorous with wings, but crown of head paler and sometimes whitish.



Antennæ whitish; pectinations 8. Forewings broadly triangular, costa moderately arched to  $\frac{1}{5}$ , then very strongly arched to apex, apex rectangular, termen slightly bowed, scarcely oblique; ochreous, brownish, fuscous, or reddish; a small pale circular spot in disc at  $\frac{1}{3}$  and at  $\frac{1}{3}$  from costa; costa sometimes with some whitish suffusion; indications of a dark wavy transverse line before discal spot; four or five wavy dark lines beyond middle, often obsolete; a strongly marked line from  $\frac{5}{6}$  costa to  $\frac{1}{5}$  dorsum, slightly bisinuate, closely preceded by a parallel fainter line; a strongly and coarsely crenated subterminal line, the space between it and preceding line sometimes suffused with grey; cilia concolorous. Hindwings with termen round, tornal angle rather prominent; colour as forewings but paler; a nearly straight transverse line before middle, sometimes double; two parallel straight postmedian dark lines; subterminal line as in forewings; cilia concolorous.

♀. 116-144 mm. Usually paler in colour. Forewings narrower, with apex acute and produced.

Type in Coll. Turner.

N.Q. Evelyn Scrub, near Herberton, from October to January; a series bred by Mr. F. P. Dodd, to whom we owe most of our knowledge of the rich lepidopterous fauna of the Cairns-Herberton district. Some years ago Mr. Dodd sent me two female examples taken at Kuranda.

An allied species, *E. styx*, B-Bak., Nov. Zool. 1908, p. 176, is found in New Guinea.

#### GEN. AXIOCLETA nov.

[ἀξιόκλητος, worth choosing.]

Tongue absent. Palpi short, hairy, porrect. Antennæ bipectinate to apex in both sexes, pectinations long in ♂, short in ♀. Head and thorax densely hairy. Abdomen in ♂ with a short tuft, in ♀ with a large rounded tuft. Posterior tibiae with two pairs of spurs. Forewings with vein 2 from  $\frac{3}{5}$ , 3 from well before angle, 4 from angle, 5 from middle of cell, 6 from upper angle, 7, 8, 9, 10 stalked, 9 from 8 before 7, 11 from  $\frac{3}{4}$ , free. Hindwings with 2 from  $\frac{3}{5}$ , 3 from well before angle, 4 from angle, 5 from middle of cell, 6 and 7 stalked from upper angle, 8 closely approximated to cell near base but not connected.

Type *A. perisema*. Closely allied to *Arcturus*, Curtis, in which 8 of hindwings anastomoses strongly with the cell.



**AXIOCLETA PERISEMA** n. sp.

[περισημος, distinguished.]

♂. 40-48 mm. Head and thorax white. Palpi blackish. Antennæ white; pectinations 10, whitish-ochreous. Abdomen white, basal segments often with broad transverse bands of brilliant red, two blackish penultimate transverse lines, tuft ochreous. Legs white; anterior pair anteriorly dark-fuscous. Forewings triangular, costa gently arched, apex rounded, termen obliquely rounded; snow-white; without markings, or with a fuscous erect mark from dorsum at  $\frac{1}{3}$ , and a sinuate interrupted fuscous line from beneath costa before apex to  $\frac{2}{3}$  termen; cilia white. Hindwings with termen rounded; snow-white; cilia white.

♀. 44-54 mm. Palpi white. Antennal pectinations 1. Forewings without markings. Abdomen without red bands, and with only one penultimate transverse blackish line; tuft voluminous, whitish-ochreous.

A beautiful species curiously variable.

Types in Coll Turner.

N.Q. Evelyn Scrub (3,500 ft.) near Herberton, in December and January; a series bred by Mr. F. P. Dodd.

**Note on Localities.**

Having recently visited the Cairns-Herberton district, I am able to give some notes on localities, which may be useful. The town of Cairns is situated on a low sandy coastal plain, largely occupied by tea-tree (*Melaleuca*) swamps. A few miles from the coast the hills arise abruptly, covered by dense tropical jungle locally known as "scrub." Kuranda, just above the Barron Falls, is some 15 miles from Cairns and about 4 miles from the coast. It is at an altitude of 1,000 feet, but many of the insects from this locality have been collected in the Barron Gorge some 700 or 800 feet below. I think, therefore, it must be considered as only a part of the Cairns locality. Immediately behind Kuranda the hills rise to 2,000 feet, but I think little collecting has been done at the higher levels. The whole of this district must be considered from an entomological point of view as an island of the Malayan Archipelago.

Some 10 miles on the railway from Kuranda one passes abruptly into poor thin Australian forest of eucalypts, wattles, proteaceous shrubs, grass-trees, &c. In this plain is the township of Mareeba. Proceeding southwards the railway skirts the great Atherton Scrub, a dense tropical jungle with large timber at an elevation of 2,500 feet. Leaving this, in another 20 miles one enters the granite hills of Herberton with a typical Australian flora, and many Oecophoridæ and Geometridæ of southern types at an elevation of 3,000 feet. Again, within 10 miles of Herberton is the Evelyn Scrub, a tropical forest at 3,500 feet with many peculiar forms. It is not possible to regard this as a separate locality from Herberton, as the tropical jungle and Australian forest country are so intermixed. Indeed this occurs all over the coastal districts of Queensland, the insects of "scrub" and "forest" country being largely different—the former mostly Malayan, the latter Australian—though representatives of both faunas have intruded into each other's territory. Such differences of locality occurring in close juxtaposition are an interesting study for local naturalists, but impossible to distinguish in a general fauna.

The town of Geraldton, on the Johnstone River, some 60 miles south of Cairns, has had its name officially altered to Innisfail, by which name I shall quote it in future. Unfortunately it has been sometimes confused with Geraldton in West Australia, at the other end of the continent.

The figures placed after localities refer to months of capture.

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